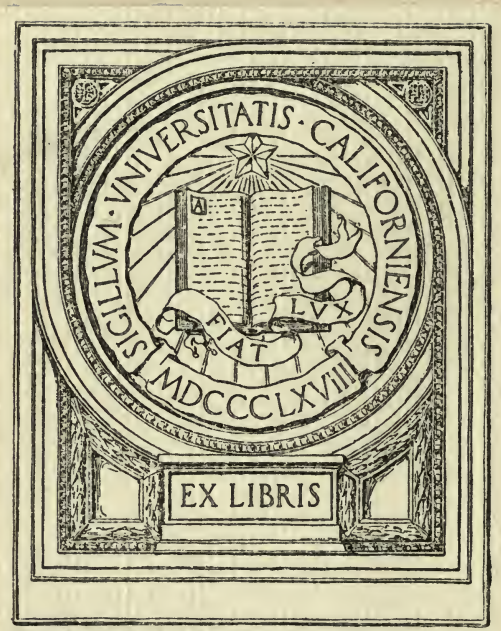
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THE ARMY OF 1918

BY

COLONEL ROBERT R. McCORMICK

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TO OUR DEAD

FOREWORD

In the early days of my service, while on duty with the General Staff of the A. E. F., I expected to publish my observations upon the development and conduct of that army; but when the war came to a sudden and unexpected end, after a campaign in which I had no part, I abandoned the idea.

Now, however, more than a year has passed since the armistice. The great army has gone back into civil life. The Regular Army is rapidly returning to its bureaucracy. Congress appears farther from adopting a military policy than at any period in the last decade. The National Guard Association wants to smash the Regular Army; and the pacifists, as though encouraged by the forest of white crosses they have caused to be planted in Europe, work for that day when they may see even more American dead than there now are in France, even as the harvest exceeds the sowing.

I have, therefore, again changed my mind, and have recorded here my observations and conclusions as a modest contribution to popular comprehension of our effort, its difficulties, its limitations and its achievements, so that another generation as untrained, unorganized and unarmed as we were may not have to face an enemy under the fearful handicaps we suffered.

ROBERT R. MCCORMICK.

November 1919.

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THE ARMY OF 1918

CHAPTER I

THE BACKGROUND OF THE ARMY

In January of 1917 Germany decided to risk war with us because she thought that we were more formidable to her success as a neutral than we would be as an enemy.

As a neutral we kept her from making the maximum use of her submarines; as an enemy we could only try to. If her submarines were successful, she had nothing to fear from our military power; if unsuccessful, as after months of effort on her part and anxiety on ours they turned out to be, she still felt no apprehension of danger from our land forces.

She had watched the efforts made in America for a more powerful army; she had seen President Wilson tentatively adopt the idea and had seen him abandon it; she had observed a secretary of war (Garrison) who was committed to it jetti-

soned and replaced by a pacifist (Baker) who carried Ohio for Mr. Wilson's reëlection in 1916, on the watchword "He kept us out of war!"

She had just witnessed a demonstration of our military impotence in the mobilization of all our armed forces on the Rio Grande to resist the projected Mexican invasion.

Any German who fought against us in 1918 and who reads the German secret service reports on our 1916 farce must believe that we had been deliberately fooling the observers.

Germany also knew that the Military Affairs Committee of the House of Representatives was controlled by a clique that would—as it did—put every obstacle in the way of military improvement. She knew that never in our history had we organized an army fit to take the field in less than two years. She knew, and in this particular she was entirely right, that we did not have and could not manufacture arms for an army of decisive size during the months she expected to employ in winning the war on land.

Germany knew, likewise, that the only organized forces in America, the Regular Army and the

National Guard, were antagonistic. The ancient quarrel between them and the new elements of friction which would arise in the development of the new mobilization could be expected to militate against our efforts in the field.

Since this domestic military antagonism has continued throughout the war and is now one of the chief obstacles to a safe military policy, it is desirable to outline its history, which began long before that of the nation, in an effort to find a solution that will bring harmony and efficiency into our army councils.

Antagonism on the part of the people toward a regular army comes to us from English history. After Cromwell overthrew King Charles I. and Parliament, he ruled for a quarter of a century, a military despot crushing all opposition with the sword. Upon the Restoration, Parliament resisted all the efforts of Charles II. to establish a new regular army; this resistance was only partly successful.

James II. increased the military forces of his brother; used them to suppress the insurrection under Monmouth, and followed the military vic-

tory at Sedgemoor with a bloody persecution that is still remembered with horror.

To overthrow James II., William III. had to bring with him from Holland a mercenary force of Dutch and Swedes, whose unpopularity is preserved to us by the meaning attached to the word "blackguard"—the name (Black Guard) of one of his household regiments.

The vicissitudes of the mother country were not felt acutely in the colonies, but the refugees of all parties that crossed to America brought with them their political opinions and their grievances, and among these we find a fixed hostility towards "the regulars."

Frontier life in the new country made it necessary for men to acquire skill in arms and reintroduced the condition of armed freeman, of which increasing civilization had deprived the old country. To defend themselves against the Indians, the colonials had to organize military forces.

In the French and Indian wars, British regular troops were sent to America and colonial militia were enrolled by the several colonies, particularly in New England. The regulars and colonials

were never congenial allies; ill feeling existed on both sides. The resentment of the colonials was accentuated by a regulation which made the most junior officer of the King's army senior to every officer in the colonial forces. It was because of this regulation that Colonel George Washington retired from active military duty until he returned to fight against his former associates.

One may properly speculate upon how far this regulation was responsible for the Revolution. Merchants were vexed at taxation, lawyers were indignant at the continuous violation of natural rights, legislators resented unjustified and arrogant interference with their powers. But what could all these have done if the colonial soldiers had not been willing to fight their recent comrades?

It is interesting to note that the shadow of this regulation, strangely incorporated into our service, is today one of the causes of hostility between officers of the American regular army and officers of the other corps.

The American Revolutionary war was a conflict

between the regular army of England and the colonial militia of the French and Indian wars, although the British were reinforced by German mercenaries, and the Americans by French regulars and by German, Polish and French officers, who entered the American service as soldiers of fortune.

Necessities of space prevent any extended discussion of this war, but two important features challenge our attention: First, the regular troops generally outfought the militia; and, second, the militia generals, risen in a field of free competition, generally outmaneuvered the generals who came into authority by the routine of the British regular army.

Also, it is a significant coincidence of this war that the American admiral, the greatest naval man America ever produced, came into the navy from the *merchant service.*

After the formation of our nation, President Washington endeavored to formulate a national military policy. He had observed the breakdown of the British regulars and he had seen the fallacy of the untrained militia.

Recognizing that officers must be chosen for ability and activity rather than for length of service, he had mortally offended his old friend, General Knox, at the time of the expected war with France, by not appointing him one of the lieutenant generals because of advanced age. Had Washington installed a permanent military policy for the United States we should have avoided many of our subsequent defeats and heavy losses of life.

Unfortunately, after Washington the leadership of the nation was taken by a word man (Thomas Jefferson) who never had entered a battle and never intended to, and who, in playing fast and loose with our military system, exercised the same freedom that characterizes all slackers and pacifists. He made of the army a constabulary to garrison objectionable army posts, and he fastened upon it a character which has limited its efficiency to the present day.

In 1812 there was no regular force adequate to conduct a war. There was no such militia as captured Louisburg and Havana and defended Bunker Hill. As a consequence, Detroit, Buf-

falo and Washington were captured and burned, while New Orleans was saved to the nation only through the genius of Andrew Jackson.

The battle of New Orleans was one of those rare fights where undisciplined troops have vanquished regulars. The reason for this is that they were led by a man whose talents approached genius, while the British regular troops were commanded by a man who, notwithstanding twenty years' campaigning under England's greatest living general, could not learn the principles of war. A wrong lesson is likely to be learned from this battle—namely, that raw troops are equal to veterans. *The correct lesson is that a general promoted according to the routine of a regular army threw away the advantage he held in commanding a trained army.*

Thirty-four years after the battle of New Orleans the United States fought a war with Mexico which had a character all its own among American wars, in that it was a war brought on by our Government, and not a war in which the people as a whole were vitally interested.

By order of President James K. Polk, the regu-

lar army was concentrated on the Mexican frontier in January of 1846. It moved upon Mexico in September, forced Mexico into war, attacked and invariably defeated the Mexican armies. It was a war of conquest, like the European wars of the previous century, and, like them, was conducted, for the greater part, by a professional army. As a military and political venture it was completely successful.

But it entailed political consequences not at all to the fancy of its creators. One of the successful generals, Zachary Taylor, was elected President of the United States, and the other, Winfield Scott, became a constant candidate, endeavoring to attract popular support by a display of military pomp. Whatever popularity might have accrued to the regular army from its successful conduct of the war, it was dissipated by the attempts of its most successful leader to capitalize in the political arena its achievements on the field of battle.

Largely in consequence of this the army was again reduced to the status of a constabulary and posted along the Indian frontier west of Kansas

and in the territory newly acquired from Mexico. Its officers had the benefit of an able primary education at West Point academy, but after graduation were left to shift for themselves for any further learning.

Many volumes of military history have been written about our Civil war; but little emphasis has been laid upon the extraordinary political conditions at the time the war began. Early historians assumed that their readers were fully informed of these facts. Military critics have merely ignored them. No military lessons can be drawn, however, without recognizing the compelling political considerations.

During the years immediately preceding secession, the national government of the United States was in the hands of the future secessionists. The leader of rebellion in 1861, Jefferson Davis, was in 1857 the Secretary of War of the United States. The President of the United States in 1861, Abraham Lincoln, belonged to a party which was in the minority in 1860.

The military revolution attempted by the South in April, 1861, was preceded by a political revo-

lution in 1860. War was declared, in effect, by the southern states by their resolutions of secession before Lincoln became president and while the administration was unwilling to oppose or interfere with armed rebellion.

In its inception the war for the preservation of the Union was, therefore, exactly opposite in character to the war for conquest in the southwest in 1846.

In the earlier combat the Government of the nation used its existing military force to overcome a weak neighbor. In the present case, the Government of the nation had to use such elements of the nation as would support it to overcome the rebellious sections.

The new administration had no knowledge of military affairs; it did not know the officers of the army, and, in the early days, when many distinguished officers were violating their oaths of loyalty, it did not even know which ones it could trust.

Where the regular army moved into Mexico in 1846 in mere obedience to orders, without any conviction of right and with no stronger incentive

than professional ambition, the Union army of 1861 was composed entirely of men inspired by the most lofty convictions, but with little, if any, feeling of a legal obligation to fight.

If the army of 1846 may be compared to the armies of Richelieu and Louis XIV., the army of 1861 was like the original army of Cromwell, and, like the Cromwellian army, its officers were chosen for the force of their moral leadership and not from any conception of the military skill needed to lead men into battle.

The Union troops were raised by states, and commissions up to the rank of colonel were issued by governors. Generals at the beginning were appointed largely upon the recommendation of loyal congressmen.

Armies were thrown into action within a few weeks of the original assembly of the men and, naturally, disasters resulted.

The antagonism which had characterized the coöperation between the British regulars and the colonials reappeared between the American regulars and the American volunteers. There was a great deal of fault on both sides. Without train-

ing or experience, no civilian, howsoever able, is ready to perform the duties of a high ranking officer. Inevitably, therefore, civilians appointed to high rank at the beginning of the war failed in the field. On the other hand, many civilians developed into excellent generals.

Mere training and experience, however, will not fit a dull man for high command; and many regular officers, who were given their appointments for no better reason than that they had received preliminary education at West Point, failed as dismally as the amateurs.

If it justly may be charged against the volunteers that they caused generals to be made who were without the requisite training, it also may be charged against the regulars that they caused generals to be retained after they had proven their unfitness.

The most glaring example of this sort was that of General Sherman, who removed the brilliant and capable Logan and replaced him with the defeated and discredited Howard. This mistake of Sherman's was fully recognized by Grant, but the injury had been done.

Logan, as vindictive as he was brilliant, for years afterwards was the leader in the Senate of the "volunteer" faction against the "regulars" and contributed much to perpetuate the feud between the services.

Stripped of hostility and prejudice, it is not difficult to assign the regular army to its proper place in the preservation of the Union, to point out its limitations, and to show where the volunteer system did help decisively in the victory.

The regular army was the national reservoir of military knowledge. All volunteers had to go to it to learn the elements of military conduct. The regular army furnished an indispensable framework around which the conquering armies were built. It furnished most of the successful officers of high rank, and the greatest soldiers produced by the war had, at some period of their lives, served in it.

It did not, however, as an organization *per se*, produce the victorious commander nor his principal lieutenants.

It is customary to look upon General Ulysses S. Grant as an officer of the regular army. The

regular army claims him from the volunteers. Yet he entered the war in spite of the regular army; and the regular army today would fight bitterly against permitting another officer to rise to power as he rose.

Grant was graduated from the West Point Military Academy and served for several years before the Mexican campaign as an officer of infantry. In that campaign he displayed exceptional brilliancy, a brilliancy which ought to have received instant recognition but did not. It is a congenital fault of our regular army to fail to recognize exceptional conduct. Shortly after the Mexican war he resigned from the army. Rumor says that intemperance was the cause. There is no evidence to indicate that the regular army made any effort to save for itself the hero of San Cosme church and the future savior of the Union.

With the outbreak of the Civil war Grant sought employment from General George B. McClellan, commander-in-chief of the Union forces, and a regular army man. He got no answers to his letters, nor did he obtain so much as an interview.

He went to work in the office of the Adjutant General of the state of Illinois, and was appointed colonel of an Illinois regiment by Governor Yates of Illinois. He was afterwards appointed brigadier general by President Lincoln *at the unanimous request of the Illinois congressmen.* Thus, the volunteer service supplied that which the regular service denied—opportunity to genius.

Placed by accident in a locality which did not interest those in authority, he marched from victory to victory while the regular army generals were adding defeat to defeat. After each victory his command was taken away from him, and he was left unemployed until the failure of his successor compelled the reëmployment of the genius.

Eventually, he brought to the Union arms the most complete triumph in the history of war; and today military writers who rave over the marches, even the failures, of lesser men are busy trying to explain away the victories of a leader whose rise was so unorthodox.

If there was a Grant, a Napoleon, or a Marlborough in the recent world war, he was not

allowed to rise. The regular army system of suppressing brilliant men who might surpass all their seniors was sufficiently in vogue in all the belligerent countries from 1914 to 1918.

The close of the Civil war left us with a splendid organization, and with a realization of the necessity of allowing native ability free play, as well as of the value of military training.

No adequate military legislation resulted, however, and the regular army went back to chasing Indians.

The nation in 1865 felt supremely strong in the possession of a million trained soldiers, thousands of trained officers, and generals of the highest order. This feeling lasted long after the soldiers had passed military age. A few of the volunteer regiments maintained their organization, but with a character in which the social and political features gained ground at the expense of the military.

After the Civil war military drill was taught in schools and colleges; but this decreased every year and passed out of existence about the time of the outbreak of the war with Spain.

The Spanish war again bears a character entirely different from all our other wars. It was a spontaneous crusade to end Spanish misrule in Cuba and was brought about by the insistence of public opinion.

Neither the administration of President Cleveland, which left office in the Spring of 1897, nor that of President McKinley, which succeeded, desired or anticipated such a conflict. The regular army was small, unorganized, ill-equipped, and commanded by men whom advanced age had deprived of their once not insignificant military powers.

Enthusiasm for the war with Spain was intense. Volunteers offered themselves much faster than the military authorities could prepare to accept them, and a form of organization was adopted similar to that of the Union army in the Civil war. President McKinley took advantage of the opportunity to conciliate the southern states by appointing to high command old men who in their youth had been prominent in the armies of the Confederacy.

Events, however, took all initiative out of the

hands of the Government. Admiral Sampson blockaded the fleet of Admiral Cervera in the harbor of Santiago, Cuba, and demanded military forces to drive it to sea. Hardly had the army, comprised almost entirely of regular troops, succeeded in this, when yellow fever threatened it with extinction. From this it was rescued by the forcefulness of Colonel Theodore Roosevelt, who, overcoming the inertia of regular channels, compelled the removal of the expedition to Long Island.

Meantime, Admiral Dewey's victory of May, 1898, in Manila Bay had led to complications both with native insurrectionary forces and with Germany which made necessary the sending of an expedition across the Pacific. This expedition, made up nearly altogether of volunteers from the western states, armed with old-fashioned rifles, was successful in capturing the city of Manila from the Spaniards, and, later, in defeating a native army which attacked the Americans.

The vast majority of the volunteers in the Spanish war were never engaged, but were concentrated in training camps without adequate equip-

ment or organization where they suffered the ravages of disease.

Five officers developed conspicuous abilities in these struggles—Wood, Roosevelt, Bell, Funston and Pershing—three of them volunteers and two captains in the regular army.

Although successful in every campaign, it was recognized that the American army was grossly inefficient.

From the close of the Spanish-Philippine war, therefore, dates the improvement in our military services which contributed to America's being able, at the decisive moment, to put into the field enough battle-worthy troops to turn the defeat of the allies into victory; and this in spite of a weak administration at Washington. This improvement was the achievement of the soldiers themselves, the secretaries of war, and the volunteer spirit of our militia. No other statesmen, except President Roosevelt, himself a soldier, ever helped.

In the regular army the leadership was assumed by men who had won high rank in Cuba and the Philippines. They gathered about them,

in important staff positions, officers of demonstrated fitness, although they could not advance them over slothful and stupid ones because of the seniority law. For the first time in our history, however, the framework of a general staff was formed. A war college was established in Washington for the study of military problems; schools were opened for instruction in the technical details of army duties, ranging from horseshoeing and baking to artillery practice and logistics. Real progress was made in acquiring technique, and with it came a corresponding rise in morale.

These steps were not taken without opposition. The army figures largely in the expenditures of government. The beneficiaries were long accustomed to their profit. To improve the old army meant to disturb many of these powerful and greedy recipients of congressional appropriations. Progress also disturbed the lazy and the incompetent among the officers. These like certain admirals of the present day struck hands with the profiteers and furnished "expert testimony" against all reforms. Improvement became harder

and harder and practically stopped after Roosevelt left the White House.

In the meanwhile the National Guard was proceeding no less sincerely in its more modest sphere.

When the regiments of volunteers were reorganized after the Spanish war only men of military bent remained. A strong desire for betterment existed, but the state governments furnished little financial and no educational help. Troops commissioned by the states, with commendable inconsistency, appealed to the national government for aid. The government, by acts of Congress, thereupon began to furnish uniforms, rifles and instructors, and, in return, has kept a certain check upon the numbers and efficiency of state troops.

Unfortunately, the relations between the National Guard and the Regular Army again assumed the character of their ancient grudge. The soldierly element did not rise in the National Guard Association. The National Guard generals were, for the most part, politicians, and politicians who belittled the knowledge and pur-

poses of professional soldiers to conceal their own ignorance, an example which, it is worth noting, was followed in 1918 by certain regulars who were unable to grasp the modern tactics of their French instructors, and who sought to hide their incapacity with a similar abuse of learning.

The Regular Army, for its part, did its work grudgingly because it objected to the recognition of any military organization except its own. In spite of all obstacles, many National Guard officers and organizations absorbed much of the knowledge the regulars had to teach, and with this knowledge attained a degree of discipline and organization hitherto unknown in militia troops in time of peace.

The Philippine insurrection and the Boxer outbreak in China in 1900 kept the army before the public eye for a short while. Domestic problems became acute, and military affairs were left to army officers, national guardsmen, and the War Department, and by all of these they were attended to with a devotion for which the nation may well feel a deep and lasting gratitude.

Neither the Russo-Japanese war in Manchuria

in 1904-5, nor the Italian-Turkish war in 1910, nor the wars in the Balkans in 1911-13, created much stir in America. It was not until the great war broke out in Europe in 1914 that the public agitated itself about military affairs, and then, unfortunately, to little purpose. There was an element in the nation, inconsiderable in numbers but strong in organization, in platform speakers, in writers and in financial backing which, composed of men who determined that under no circumstances would they ever fight for their country, devoted itself to preventing the men that would fight from being given a fair chance for their lives and for victory. The pacifists were against any plan for national defense and, of course, against whatever plan at the moment seemed likely to receive congressional sanction.

This opposition would have been swept aside, however, but that the Regular Army and the National Guard failed to agree upon a method for increasing the military efficiency of the nation.

In 1911 a federal appropriation had been provided which furnished funds for such units of the National Guard as measured up to standards es-

tablished by the Regular Army. The measure which carried this appropriation designated the National Guard as the second line of defense of the Union, to be mobilized before volunteers should be called for.

In 1915 the Secretary of War, Lindley M. Garrison, introduced a bill creating an army to be known as the "Continental Army," to be organized among civilians under the direction of the Regular Army, with junior officers from the Reserve Corps. The new army was to take precedence over the National Guard. This measure was vigorously opposed by the National Guard and was never pushed to passage. Its only effect was to revive and increase the animosity between the regular and non-regular services.

In 1915 Major General Leonard Wood, then commanding the eastern department, with headquarters in New York, organized a volunteer training camp at Plattsburg, N. Y. The plan met with instantaneous and enthusiastic success. Camps were established in other parts of the country, and in the following year an appropria-

tion was obtained from Congress to defray the expenses of the student-officers.

Colleges also renewed their interest in military drill, and, acting under the National Guard act, organized various units for the training of the students.

The greatest advance toward national preparedness, however, came about, not through the efforts of any American, but through the initiative of President Carranza of Mexico.

If Jena made the German army great, and if Sedan did the same for the French, the mobilization of 1916 made the American army of 1918 possible. Up to June, 1916, our administration had refused to take any military steps in contemplation of our difficult relations with Mexico. Early in that month General Funston's secret service intercepted a Mexican order to raid the states of New Mexico and Arizona and to invade Texas in force, capture San Antonio, and, in conjunction with the Mexican population, reannex the southwestern states of our country to Mexico. Panic ensued in Washington, and the entire National

Guard was ordered to muster immediately and proceed to the Mexican border.

Unless it was in 1898, never before was displayed such utter lack of organization and military preparedness. German and Mexican secret service operatives might well have reported to their superiors that America was as incapable of military action as China.

The demonstration was not only sufficient, however, to deter the Mexicans from proceeding in their plans, but it had other far-reaching effects. It startled the people and the administration into a realization of our actual weakness. It showed up the manifold deficiencies of our administration, and, thanks to General Funston and the system of training he installed among all the troops in his command, it formed the cadres which saved us in 1918; for in the flotsam and jetsam of this wretched affair were the formations which were to furnish storm troops in the hour of need.

It is a strange fact, however, that when it found itself at war with Germany the Regular army did not want to use the organized forces of the National Guard it had done so much to prepare.

Rather, it would begin with hordes of untrained men. It asserted with great obstinacy that the only function of National Guard troops was to guard munition factories and railroad bridges and, taking advantage of a panic over German plots, got them safely out of the way and out of training and doing such work as Clausewitz, a German general staff officer of a century ago, assigned to the *Landsturm*.

The National Guard, for its part, organized in different states in units of battalions, regiments and brigades—there were even two divisions—wanted to enter the national service intact.

The mobilization of 1916 improved the feeling between the two services, but did not heal the breach. Unhappily, after two years of bloody war, it remains open.

CHAPTER II

THE INSPIRED AMBASSADOR

For some months after the declaration of war on April 6, 1917, the German calculations appeared correct. America had entered the war without any idea of how she was to wage it. The nation was not unanimously for the war. The administration let weeks pass without any effort to get ready for the stupendous consequences of the course it had adopted.

Among those who had been clamoring for war, a great number argued that its conduct would merely require our sending the fleet to tighten the blockade, putting an embargo on all exports which might reach Germany through neutral channels, and financing the allied nations in arms against her. Others demanded that a volunteer army should be sent to France and suggested as its commander Colonel Roosevelt, the only man in sight who could raise such a force. Recruits were insufficient to fill either the Regular army or the

National Guard. The enthusiasm which brought on and characterized the war with Spain was lacking. America had considered victory for the allies as practically certain after the battle of the Marne, and war was declared in this belief.

Then, after our declaration of war, Germany won the great victory of the Spring of 1917. The British and French had hoped to win a decisive battle by a joint offensive. Hindenburg maneuvered from before the British attack, and inflicted a frightful repulse upon General Nivelle, who had replaced the cautious and successful Joffre. At the same time it began to appear that the Russian revolution, hailed with delight, if not actually fomented, by the allies, was taking an unexpected turn and that the Russian pressure in the east would be withdrawn. From the threshold of victory the allies felt themselves on the brink of defeat. France decided that American assistance had become imperative and sent Field Marshal Joffre, victor of the Marne, to get it.

Of all the strangers who ever came to our shore Joffre exercised the greatest influence over our people and upon our destiny. He cap-

tured public opinion at once, and the people imposed his recommendations upon Congress, President, and army alike. His appearance was so venerable, his manner so simple, his statements of facts so devoid of artifice and revealing conditions so appalling that the nation was stirred to its soul.

He told us that France was on the verge of collapse. A force of troops must be sent immediately to restore the shattered national morale. After these must follow an army of gigantic size. He assured us that our volunteer system, then under consideration, never could provide the number of troops needed in this war; nor could our army, employing the tactics taught in our drill regulations, exist in the face of the war-trained German army, equipped with arms the Americans had never even seen. France would furnish everything she had in equipment, in designs for arms, and in instruction. He gave to our ordnance department the secret plans of the famous .75 field piece.

At first the American authorities attempted to impose a censorship upon his utterances. The

text of his first public speech was edited by his American military aide, who eliminated his opinions upon American military organizations. Hearers who understood French supplied the missing fragments of his speech to the press, and the field marshal constantly repeated them in his private conversations.

Suddenly the nation realized that it had entered a fight which threatened its very existence.

From that moment the American people formed a cohesion of purpose such as never had existed in our national life and which lasted throughout the war. The administration and Congress marched with public opinion.

The pacifists, the anti-Americans, those who had fought national preparedness in Congress, were for the moment overwhelmed. The Draft act, one of the great milestones in our national evolution, and one that future historians will class with the drawing up of the Constitution and the preservation of the Union, was passed. Every young American was made liable to fight for his country, and, therefore, every parent became interested in

seeing him properly trained, properly equipped and properly led.

There remained to decide the status of the Regular army and the National Guard. The former wished to disband the latter. The latter wished to enter service under the terms of legislation then in force. A compromise was reached. The National Guard, in its existing organization, was mustered into the federal service, but its officers were reduced to the status of reserve officers. This provision was not acceptable to the National Guard, but was strongly championed by the Training Camps association, an organization of men who had been training for reserve commissions under the direction of the Regular army.

With the splendid achievements of the national guardsmen ever fresh in mind, it is pleasant to look back on the unselfish patriotism which imbued them. They offered themselves for war; they fought to go to war; they gave up long-standing privileges to go to war; and they allowed themselves to be placed under the control of the Regular army, which they did not believe would give them even fair treatment. When the War

Department later announced that National Guard cavalry was not to be sent to Europe, regiments of this arm voluntarily transferred into the artillery, although the artillery service at that time was believed to require such technique that only men of long training could officer it.

The National Guard had been accused of too much politics. Under pressure it showed its capacity for perfect military sacrifice.

In four weeks from the arrival of Marshal Joffre, Congress by legislation had provided for the expansion of the Regular army, for the enrollment of the National Guard, and for a national army to be composed entirely of drafted men. The draft was also to fill up vacancies in the Regular army and National Guard and furnish replacements for casualties. Four kinds of officers were provided: Officers of the Regular army, officers of the National Guard, officers of the Reserve Corps, and officers of the National army. This last class might be composed of civilians beyond the age limitations for reserve officers or of regular officers promoted for the emergency to higher rank.

Much credit is due to studious officers of the Regular army in drafting these bills, and also severe blame for two inexcusable provisions: (1) that where two officers are of the same grade, if one holds a lower commission in the Regular army he shall be deemed senior, even though his commission in the higher grade is the more recent (a survival of the rule in the French and Indian wars which made all officers of the British army superior to colonial officers); (2) that officers of the National Guard, Reserve Corps, and National Army could be deprived of their commissions for incompetence, upon the recommendation of a board of officers, while officers of the Regular army were exempt from this ruling. The distinction was this: incompetent officers of the temporary services could be discharged, but incompetent officers of the Regular army could not!

The Draft act will pass into history as the outstanding legislative achievement of the war. Following a long dominance in our national life of a faction of weak national feeling and of centrifugal propaganda, the Draft act asserted the supremacy of the nation over all its citizens to an extent that

even our federalist and unionist ancestors had not attempted.

But if the Draft act was the most important feature of the struggle, surely the officers' training camps were the most romantic.

Fifty thousand of the best youths of the nation assembled at the selected places to undergo hard training, severe and competitive examination, and then the rigors of war. At this time there was no draft act to evade, there were no rain-proof jobs on the horizon in Washington. The only hope of reward was a commission as a junior line officer, the most burdensome, as it is the most perilous, position in the army.

The men of this first camp will ever occupy a pedestal that no other group of officers can reach.

Regular and National Guard officers, when they entered military service, faced no such certitude of hardship and danger.

In the conduct of these schools the Regular army rendered its greatest service in the war.

While the shortness of the course did not permit much military instruction, nor, in fact, were our Regular officers fully equipped to instruct in mod-

ern war, they did impress upon their pupils their own unsurpassed sense of duty, of self-immolation, of rendering and exacting obedience. They taught the rigors of army life and demonstrated in camp the heart-breaking fatigue which it is the lot of every soldier to endure.

The camps were tests rather than courses of instruction. The graduates were not trained officers, but they were capable of becoming officers of the highest type. Early in the war some of them were sent to the front in regular divisions and given responsibilities that in normal times would not come upon officers of ten years' experience. A percentage failed, and under the iron rules which preservation of an unbroken front made indispensable these were relieved. The majority, however, served with great honor, and, it must be said, received too little recognition in comparison with their superior officers, whose rapid rise was largely due to their young subordinates.

Field Marshal Joffre's mission had borne fruit. America provided for a great army. In June it dispatched the First Division with General

Pershing and his staff to encourage our allies while the gigantic army was being raised.

In July the National Guard was called into the federal service, and in September the draft went into effect. All the well considered calculations of the Kaiser's government had crashed to the ground.

CHAPTER III

EARLY DAYS OF THE A. E. F.

I was mustered into the federal service in May, 1917, and reported to General Pershing in Paris in July.

The wisdom of General Joffre's request for an American force to appear immediately in France was manifest at once. The morale of the French nation was at the breaking point. There even was a number of people whose despondency was so great that they resented the entry of America into the war because it would delay peace—a peace of defeat.

The French censorship, in the interest of the commanding general, of course, had prevented any mention of the French defeat of April. The official announcement was, in the words of the first Napoleon, "as false as an official dispatch." The German communiques had been suppressed by the allies.

In consequence, France was the prey of exag-

gerated rumors. The actual French losses in the April offensive were in the neighborhood of 100,000, but rumor estimated them anywhere from double that number to 500,000.

In defeat, the French always suspect treachery. The existence of censorship, of course, accentuated the suspicion, which, moreover, was not without foundation. Treachery existed in high places, and the censorship was used to protect it.

We now know how Bolo Pasha was caught in America, and, upon evidence produced from America, was condemned and shot. We know that M. Malvy was tried and exiled, and M. Caillaux was convicted of serious charges.

Of course, the American staff obtained this information in advance of the general public. It knew of the murder of Almareyda on the day following the crime. The story is not generally known and will bear telling here.

Almareyda, an opium fiend and a man of suspicious life, but at the same time a confidant of high officials in the French republic, was arrested and almost immediately afterwards found dead in his cell. The prison doctors issued a certificate that

he had died from an overdose of morphine, self-administered. Under French law the authorities retained jurisdiction over the body until it was placed in the grave.

As soon as this was accomplished the nearest relative, who thereupon obtained the right of control over the corpse, had it dug up and demonstrated to witnesses from marks on the neck and from an examination of the lungs that death had come from strangulation.

A so-called investigation was held and it was declared that Almareyda, in a fit of despondency, had hanged himself with his suspenders, and that the prison authorities had lied about the manner of his death to save themselves from the charge of carelessness. This story was in itself rendered doubly ridiculous by the fact that the suspenders could hardly have supported the weight of the man and by the second fact that the highest support to which this peculiar hangman's noose could be attached was the head of the prison bed, some two and a half feet above the floor. The public was asked to believe that Almareyda hung himself lying down!

Publication of the crime, of course, was permitted only in versions sanctioned by the authorities. The story, as told here, is the one which came into the Intelligence Department of our General Staff. It was generally believed that Almareyda had been murdered to prevent his betraying important accomplices. The names of those prominent officials were mentioned, but I do not recollect whether their names were placed in the records of our General Staff.

About the same time Mati Hara, a woman of the half-world, was executed; and it was believed that she was induced not to betray her accomplices by promises that her life would be spared at the last moment, and that the death volley was fired before she understood the deception practiced upon her.

A movement was seriously projected to call a joint meeting of the Senate and Chamber of Deputies at Versailles. (When the Senate and Chamber meet in joint session at Versailles they automatically become a joint constitutional convention and parliament with unlimited powers.) The overthrow of the government and the re-

moval of President Poincaré were contemplated.

The object of the proposed convention was entirely patriotic; but it was gradually abandoned as the Russian revolution developed into a reign of terror and a surrender to Germany. The position of the French government, however, gradually became impossible and it was finally overthrown by the terrific attacks of Georges Clemenceau. Publication of these attacks was absolutely forbidden by the censorship. French officials never mentioned them; yet they were known in Paris among American newspaper men, who brought the news to our General Staff.

The staff, of course, came into possession of a large part of the secret history of the war. It learned the nature of the dual alliance between France and Russia; the terms of the military compact between France and England, under which England guaranteed an army to fight on the continent against Germany, France, in return, opening up to England the broad studies of her war college, studies which went far beyond anything dreamed of outside of the continent of Europe, and even more profound than those of the

German general staff. The staff learned how, for some years before the war, Belgium had been irresolute, unable to make up her mind whether to join the alliance against Germany or to stand neutral. This vacillation, preventing the formation of a plan to use French and British troops for the defense of the Belgian frontier, is responsible for Germany's easy conquest of the little country and the successful turning of the French left flank at Charleroi.

We learned that before the beginning of hostilities Germany had asked Italy merely to mobilize troops on the French border and, in payment for such slight service, offered territory both on the French mainland and in Morocco. Italy refused to comply, saying that action on her part was not required under the terms of the Triple Alliance. On the other hand, she notified France of her intention to remain neutral, thus permitting France to concentrate against Germany the troops which, in the scheme for a general European war, had been assigned to the Italian frontier.

The general staff obtained the details of the

various secret treaties between the allies, publication of which during the peace conference caused such public commotion. The first treaty between England, France and Russia for the partition of Turkey gave Persia, Palestine and Alexandretta to England, Syria to France, and Armenia and Constantinople to Russia. It is likely that Bulgaria, learning of the disposition of Constantinople, which she coveted, was influenced thereby to join the Central powers.

In order to draw Italy into the Entente, this treaty had to be modified; and it had to be altered again to secure the support of Greece. All this information was forwarded by our general staff to Washington in the summer of 1917, and was available to our State Department throughout our participation in the war.

All the allied governments had military missions in Russia, exerting various kinds of influence upon that government. From them we learned of the fast waning morale of the Russian troops; how the demagogue Kerensky was letting the nation rapidly drift into anarchy, and how the soldier Korniloff was striving desperately to pre-

serve discipline which would enable the army to stand before the Germans and prevent them from massing against the western front before the American army could be prepared.

The reports of all the allied missions came into our hands. It is gratifying to note that those of the American attaché were the clearest and the most prophetic.

Each of the allied missions urged its government to exert every pressure for the support of Korniloff, our only hope in the military situation.

Unfortunately, the allied governments were controlled by word men. They supported their fellow word man, Kerensky, and the Russian front collapsed.

One of the first acts of the United States upon entering the war was to place embargoes on exports to countries trading with Germany. The British blockade had not been entirely effective in keeping American materials of various kinds from reaching Germany, and had been practically powerless in preventing Germany's neighbors from trading with her. The Scandinavian countries were absolutely dependent upon imports from the

United States. They were now compelled to stop shipments of home products to Germany under penalty of an embargo on the necessities of life.

The same methods of coercion were directed against Switzerland, but with most unexpected and, as we look back upon the occasion, ludicrous results. Switzerland replied that unless the allies furnished her with necessary foodstuffs she would open her frontier to the German army. At that time the allies were on the defensive, waiting for the American army, and the lengthening of the battle line was to be avoided at all costs. Our diplomats were compelled, therefore, to climb down as gracefully as they could, and food was brought across the submarine zone in bottoms sorely needed to carry troops and military supplies, and, as the Swiss would not even send their own railroad engines and cars to transport it from the ports to their frontier, the overworked French railroad equipment was taxed for this purpose.

The French General Staff showed great loyalty to ours in furnishing us with copies of deciphered messages from the German wireless station in Spain informing the submarine commanders of

the location and course of our convoys. This was a real act of friendship, as the French staff was so anxious to keep secret the fact that it could decode the German dispatches that it had never given any decoded information to its other allies or even to its own navy.

The one piece of information our allies did not offer us was the number of allied divisions that were engaged or in reserve on all fronts. We obtained this information, but I consider the method by which it was done a military secret.

At this time the Catholic party in Germany made secret proposals of peace, and shortly afterward a public effort toward that end emanated from the Vatican. The German proposal was conveyed by Herr Erzberger to Switzerland, and by him to French secret agents. The French General Staff passed the word on to us. I do not know whether its terms were made public in America. They were as follows:

Belgium was to be evacuated and compensated for damages. Invaded France was to be evacuated, but not compensated for damages. Alsace and Lorraine (German since 1870) were to be re-

turned to France, and Germany recompensed by territory (not specified) in some other part of the world. German colonies were to be restored. The Austrian-Italian boundary and the eastern boundaries were to be determined at a peace conference.

The officers assembled at General Pershing's headquarters were men who had distinguished themselves by long, continuous and arduous studies at the schools which the army had formed. They had bought the military books of the renowned German military authorities, most of which had been translated into English by British officers. Officers conversant with the German language studied the originals, and other books which had not yet been translated. Thus they acquired a knowledge that had not been known to previous generations of American officers; for if Napoleon exhausted the principles of strategy and tactics, Von Moltke and his school standardized administrative machinery and the staff system necessary to the conduct of large armies.

My feeling on first meeting the staff was one of national pride; but later, when I learned how these

men had equipped themselves for the task, I realized that while the nation should rejoice at having such men ready in her hour of need, she had no right to congratulate herself upon their achievements.

In European countries a great part of the efforts of government has been devoted to the efficiency of the army. In America the substantial efforts toward military efficiency originated within the army and were carried on by the officers without aid or encouragement from the nation.

There was something professorial about these staff officers with General Pershing. Their lives had been devoted to study and they had had little opportunity to practice their theories. Accustomed to command small units, they were inexperienced in the dispatch of business, because the army frowns severely on minor mistakes of administration and offers little reward for positive accomplishment. This explains the friction that arose everywhere between army officers and business men drafted into the army. The soldiers failed to keep pace with the rapidity of adminis-

tration to which the business men had been educated in the school of commercial competition.

The work to which this General Staff addressed itself was the greatest that ever confronted any similar body of men. It had to equip the army with weapons and ammunition, and, as the event turned out, it had to produce more than half of all the other supplies. It had to study not only the developments which had come in this war but also the phenomena of European warfare, which are very different from those with which American soldiers had become familiar.

All our wars had been fought in sparsely inhabited territories, with little artificial shelter against the weather, and with few and bad roads. The billeting of large numbers of troops in the Civil war would have been impossible for lack of houses; and the principle of billeting had never been accepted in America. In France, the multitude of villages furnished cover for all soldiers not on the firing line; the dividing of organizations into proper numbers for shelter in the various towns and their reassembly for the march had to be learned by the Americans.

Ever since the time of the Romans, roads in France have been built with an eye to military use. The capacity of these roads to carry troops and their supplies had been studied for centuries. Battlefields have been fought over time and again, and have furnished encyclopedias of military information for European soldiers; and most of this was unknown to us.

The difference in the weather, the absence of severe cold, the presence everywhere of water, the defensible character of the masonry buildings, even the shape of the ground, the color of the landscape and the refractions of light—these were alien to our experience. All this had to be learned while ports of debarkation, supply depots and railroads were built. Finally, the personal relationship between our forces and those of our allies had to be built up, and misunderstandings and European jealousies overcome.

The French and British governments were intensely jealous of each other. A veritable contest arose between them for the control of their new, great and unmeasured ally. In the early years of the war American ambassadors had been clay in

the hands of European diplomats. They expected American generals to be the same. They did not doubt that the American command would be controlled—the question which agitated their minds was, by whom would it be controlled? The English held the great advantage of a common language and their instinctive ability in the selection of men for international conferences. They also held control of the sea, and owned the shipping upon which the American army must cross.

Against this, in the first instance, the French could only oppose the fact that the war was in France and that all transportation had to be on French roads and railroads.

With some abruptness the French high command placed the American sector as far as possible from the seacoast, and separated the Americans by hundreds of miles of French troops from the English.

Early in the war, the Americans would have preferred to train with the English and to go into line with and beside the English. This, however, the French obstinately forbade. They were unwilling to contemplate the two English speaking

nations so closely allied. They were, perhaps, also unwilling to give the American army a too easy line of retreat to the seacoast in the event of a lost battle. That their last decision was well taken will never be questioned by any American soldier who was in the active army after March 21st, 1918, when it looked as if a German success would pen the American troops against the Alps and when the British army, falling back on the sea, left in the allied line an almost fatal gap.

The first premise was probably a false one. The American army was incapable of any side agreements among allies. I cannot but remember, though, that in the early days of our sojourn in France the British army exercised an influence upon our own quite incommensurate with its military skill. Later, however, our ablest officers perceived that the French General Staff possessed vast stores of military lore unknown to the other allies, and, lacking which, war against Germany must have spelled catastrophe.

Our General Staff was earnest, capable and successful. It would have benefited from an earnest perusal of "Pinafore," but probably to no greater

extent than any other body of men possessed of almost unlimited authority. It soon impressed upon the allies the fact that our army was cast in a mold entirely different from that of our diplomats or our idle rich. Said an English colonel to me: "I did not know that there were such men in America. My conception of Americans has been of men trying to make enough money for their wives to spend and of women trying to spend all the money their husbands could make. There are no such people in Europe as you are bringing over. By mere force of character you must dominate the world."

Of course, this Englishman had seen the extremes of our nation. The nation is much sounder than its specimens abroad generally appear to Europeans—and the best elements of our nation were found in our army. The staff, however, furnished amusement for the allies in one purely American way.

The General Staff, among other things, is the legislature of the organization which it controls. Our G.H.Q. (General Headquarters) was a regular American legislature, and produced, in spite

of its many and complicated duties, an amazing mass of regulations governing the individual, just like legislatures at home. Later, when the army went overseas, we had a number of staff legislatures legislating their heads off.

The American uniform was designed by the worst tailor in the world in conjunction with the worst soldier; so our dress regulations became subject to many changes. Tastes varied among the army corps, divisions and brigades; and so did the anatomy of the commanding officers. From these diverse viewpoints came codes of laws as diverse as the statutes of our several states. It is a military principle that a lower authority cannot repeal the restriction imposed by any higher authority; but he may add to it or legislate upon subjects not covered by the higher command. Hence, an officer dressed in the height of fashion in one sector might find himself under arrest in another for wearing or failing to wear a pair of spurs, for the length of his overcoat, or for carrying a cane.

To the French, who do not interfere with mankind's idiosyncrasies, who devote their energy to

achieving a higher degree of professional skill than any other army has attained, this Yankee legalism was a source of much amusement. Many officers preserve to this day the celebrated order that "American soldiers are not to be seen with notoriously immoral women," issued because military police from rural districts, unacquainted with Parisian fashions and metropolitan cosmetics, revealed an embarrassing lack of discrimination in enforcing a rule that "soldiers should not associate with immoral women."

The French also were more amused than complimented when the American troops in Paris were given as a distinctive badge a white fleur-de-lys on the left shoulder!

CHAPTER IV

THE GREAT DIVISION

Upon the arrival of the 1st artillery brigade in France I was transferred to this organization at my request, my own regiment having been made into artillery.

My previous military service had been in the National Guard cavalry. I was, therefore, a stranger both to the men and the work of the regular field artillery. The first impression these made upon me has not faded, but has grown steadily both from intimate acquaintance with them and from the reflections following the close of the war.

The United States field artillery is the most admirable organization with which I have ever come in contact. During the years immediately preceding our entry into the war it prepared itself to play a threefold rôle: It had to keep in constant readiness to engage the numerically superior artillery of Mexico; it endeavored to constitute itself a sample of the field artillery we

should require in a great war; and it had to prepare for the stupendous expansion which a great war would demand.

That it would have performed the first of these duties successfully, if called upon, none will ever question. To chronicle its success in the others always will be the pleasant duty of every American military historian.

Although too small in its totality to execute an artillery maneuver, and never allowed to concentrate for practice purposes, it had worked out the rôle of artillery in modern war as fully as foreign artilleries had done before 1914 with every facility at their disposal.

I believe its use of field guns before the war was second only to the French. Also, it fully foresaw the value of curved fire, which the Germans excelled in and which the French had neglected, and it had asked to be supplied with powerful howitzers. It followed the European war more closely than did the other arms of our service and endeavored to keep its equipment abreast of war developments. Its form of organization was entirely adequate, and, once free from the incubus

of the ordnance department, it provided itself from foreign arsenals with the most effective weapons.

It is unnecessary to record here how the course of the war surprised the officers of all armies. The early plans of operations of all general staffs failed because their conceptions of the rôles of artillery and infantry proved to be erroneous.

Each of the three years following 1914 brought innovations in war materiel, technique and tactics. Our allies loyally offered to instruct our inexperienced army in all the lessons they had learned at heavy cost. In the United States artillery, or, to bring this statement within the province of my own knowledge, in the 1st brigade of the United States field artillery, which was the model and the training school for all later formations, this instruction was accepted with the open-mindedness that characterizes the well-trained and self-reliant professional.

The French instructors were selected from among their best technicians, assisted by a naval officer who had introduced methods adapted

from ocean navigation into the domain of field artillery.

The American officers were, or course, thoroughly up to date in all matters relating to draught and mobility and the care of horses. They also were so familiar with their own guns that learning the materiel of the French pieces was not more difficult than for a thoroughly skilled automobile mechanic to familiarize himself with the characteristics of a new car, although among the higher ranking officers exceptions to this must be made. They rapidly mastered a number of improved methods of directing fire, as developed by the exigencies and the opportunities of war, these only involving improvements on thoroughly understood mathematical principles.

Even before our training period was half elapsed, the need of an expanding army began to draw heavily on the existing organizations; but so efficient were these that, although the practice continued throughout the war, the 1st artillery brigade was able to meet the demands upon it for officers to instruct or command new units, and, at

the same time, to comply with every request for military service in the field.

In October the 1st division was ordered to the front. The reason given was, to furnish further instruction; but the real reason, it is believed, was to inform the allied world that American troops were in action. The division did not enter the line as a unit, but each infantry battalion was attached to and put under the command of a French regiment, each battalion of artillery being made a part of a French groupment. Junior French officers directed each of the companies, or batteries, and non-commissioned instructors abounded. Much useful knowledge was acquired in this way, but the most important and costly lesson—not to betray their presence to the enemy—was one which our troops never thoroughly learned.

German observers saw strange auto trucks on the roads. They saw khaki-clad men around the artillery observation posts and in the trenches. To ascertain the significance of this novelty, they made a small trench raid on November 3rd, and killed and captured a handful of our infantry.

On our return to the rear we learned of the great Italian disaster of October 24th at Caporetto. I felt keenly at that time that this was a disgrace to America. We had been in the war six months, with ample warning beforehand, and yet we were not able to put into the field at the vital spot the insignificant number of troops that would have saved the day.

The Italians had shown their ability to fight on even terms with the Austrians. It was eight small German divisions, acting like the edge of a knife, that cut the hole through the Italian line. If we could have been able to put 100,000 American troops at that point the disaster would have been averted.

Even after the débâcle America was powerless to help. English and French troops, worn with the hard fighting of the summer, were rushed to stop the rout; but American troops were unavailable. Our system of training was not at fault; we had to raise a great army for 1918, and to do this we had to break up our entire regular army and even distribute the officers of our National Guard

among the raw troops. Our shameful unpreparedness was responsible.

The division then returned to the rest area to await its equipment and to resume its training. All Regular officers were promoted one grade; some were sent back to America; still others became instructors in France; a few went on staff duty. The lower grades were filled with reserve officers, graduates of the artillery schools in France. There was a shake-up in the higher command, the division commander and one brigade commander being relieved. Supplies were short; clothing could not be kept up; the meat ration had to be obtained from the Canadians; pay day was irregular; the mails were dilatory; forage was lacking, and the horses suffered. Artillery drivers bought oats out of their own scant funds to feed the government horses that the government did not provide for.

At this time the General Staff College was organized at Langres with French and English instructors. Reserve and National Guard officers were assigned there, as well as Regulars; but the regulations provided that the desirable ap-

pointments from the school, the chiefs of staff and operations officers, could only be given to Regular officers; and the years of service required for the different appointments limited the field of competition for the most important posts.

On January 6th, 1918, the division was surprised at receiving orders to proceed to the front. It was still short of much essential equipment, and the artillery had never been supplied with the telephone equipment needed to train its telephone details. The new battery commanders were away at school, leaving these important commands to officers who had been commissioned only a few months previously.

The reason for ordering the 1st division to the front at this time has never been given. I do not believe that it was planned by General Pershing. At least, I know his plan a few weeks before had been not to put the division into line before spring.

It may be that considerations of French morale prompted it, or it is possible that the beginning of the Senate investigation into the conduct of the

war brought irresistible pressure from Washington.

After a reconnaissance, insufficient because of lack of automobiles and time, the division marched from the Gondrecourt area to the St. Mihiel front.

Here, for the first time, we held a continued sector—the American sector. We went in, first, as battalions under French colonels, then as regiments under French brigadiers; and, finally, as a division under our own officers. To each American unit was attached an experienced French officer, very much as Regular officers were formerly attached to the militia as inspector-instructors. Experienced non-commissioned officers were present to help the men. Staff officers and technical experts were provided. In short, everything was done that could be done to obtain assistance and instruction from the experienced troops who had fought for four years.

Strangely enough, all the American officers did not take kindly to this wonderful and necessary assistance. Some announced that their education was complete; others that the French methods were bad. A few complained of the individual

officers attached to them. On the other hand, most of the officers accepted the instruction with enthusiasm, or, at least, in good grace. They were eager to add whatever they could to their store of military information. They were keen to learn the French methods, even if they were not at first convinced of their excellence.

As I look back on the early days of our participation in the war and consider my friends who failed or who succeeded, I cannot recall one exception to this statement: That all the failures, who were sent to the rear or to America bitter, disappointed men, belonged to the class which disdained the military advice of the French, while all the successful officers, ranging from those who advanced only a grade or two in promotion, or maybe received only a simple decoration, up to those who rose to the command of corps and of armies, belonged to the class which eagerly absorbed the grim lessons of war as learned by the French.

This was inevitable. No man's education ever is completed. No man has fully mastered any profession. The men who turned from French instruction, from the experience gained in four years

of war, were men whose intellects were numbed by complacent egotism; or who were too lazy to exert themselves in further study; or were men who, like Napoleon III. and his marshals, either thought that the mere possession of military rank in itself constituted military education or were afraid to enter into military discussions through fear of betraying an ignorance of which they were fully aware or at least suspected.

There had been too much talk of "American methods." Any methods we had were the result of experience in the Civil war, the Spanish war and the Philippine war, none of which formed any accurate criterion of what the great European war was like. None of the armies, not even the German, which had made the most dispassionate study of the lessons of Manchuria and the Balkans, had anticipated what the tactics of this war would be. The views entertained by our army were exceedingly good when compared with those of the other armies in the days when all were equally inexperienced. They were crass and ineffective when compared to the tactics developed in four years of actual fighting. Unfortunately,

high ranking officers were not easily removed, and too often they had to prove their incompetency by costly and unsuccessful battle before they were removed.

To a new division sector warfare is exceedingly trying, and to a division which, like ours, only received an important part of its necessary equipment after arriving at the front, and was not practiced in the use of it, the trial was particularly hard. Until a soldier becomes familiar with the sounds of war every little burst of artillery fire, every flurry of machine guns, suggests an attack. Any indication, or no indication at all, is sufficient to cause the sounding of a gas alarm. Officers of all ranks are uncertain of themselves and of their subordinates. This is a trying phase that every division must go through, and it is the more disagreeable and serious, if the division entering the line has not been given adequate training.

Looking across the perspective of more than two years, I realize what a wonderful school for the division the Toul sector was. Under our able French instructors we began with the sim-

plest operations of the separate arms, and worked progressively forward to trench raids of considerable magnitude, raids which were, in effect, small attacks.

The Germans did all they could to assist our training. Their efforts were never beyond our powers not only to resist but to understand. If we destroyed a German battery, they destroyed an American battery. If our patrols captured a German listening post, the Germans retaliated. They kept even step with our growing experience, and firmly established our morale by an unsuccessful trench raid of large size on March 1st, a good six weeks after our entry into line.

The position which the division occupied was ideal for a school, provided the enemy wished to treat it as such. Our line lay in a low, slightly rolling country, dominated by Mont Sec, a steep, high mountain held by the enemy. To keep out of sight of his watchful observers, troops had to lie close in their trenches, dugouts or camouflaged battery positions. Troops in the woods, which abounded, were allowed freer action; but the mountain looked down on the tops of the forest,

and the German observers could recognize cuttings for batteries when indiscreetly made; and they easily located habitations and kitchens if smoke was allowed to rise during the day. The enemy also had complete control of the air, and he flew at will over our lines for observation, photographic purposes and offensive sorties. This control of the air also allowed him to maintain his balloons close to the front lines and at a maximum height.

Thus, American indiscretions invariably were punished. Trenches, reserve positions and batteries which were revealed by the least carelessness received chastisement. Sometimes this came in the form of harassing fire, or fire for destruction, or, in the event of a trench raid by either side, the enemy artillery would fire upon every American position known to it. Thick heads and dull, which had failed to learn the teaching at school, had the lessons of war pounded into them by the German schoolmasters, whose motto was: "He who will not heed must feel." Superior officers were enabled to judge of the intelligence and force of their subordinates by measure

of the losses they sustained. Performing exactly similar work and facing identical problems, some units were almost wiped out; others suffered the minimum of loss.

The Germans also taught artillery tactics to our higher command.

It may be said here that while the French in 1918 excelled in the technique of artillery, in the location of the enemy, and in the accuracy of fire, the Germans retained a superiority of tactical skill. In the placing and moving of guns they maintained this superiority over the allies to the end.

The artillery brigade entered the Toul sector well instructed by the French, but also retaining a great many of its preconceived ideas. Consequently, it was roughly handled in the early days; but with characteristic American celerity it discarded its notions and adopted the methods of the enemy where and when they had proved superior.

During all this time there was a constant flow of junior officers through the organizations. Those who had received training at the front were

ordered to other organizations, their places being taken by new arrivals from America and from the artillery schools. This system increased the difficulty of conducting the division, but it was necessary in the greater interest of preparing the army for its future rôle.

Service at the front also was a great test of personal fitness. Steps to dispose of incompetent officers holding permanent commissions in the regular army differed from the system employed in getting rid of inefficient reserve or national guard officers. Officers of the regular army could be relieved by their superiors, deprived of their temporary rank, and returned to the United States with their permanent rank by order of the commander-in-chief. They could not be dismissed. All other officers could be ordered by their regimental commanders before a board of inquiry and, upon an adverse finding approved by higher authority, deprived of their commissions.

It was my unpleasant duty to sit on one of these boards during my entire service at the front. This board adopted two standards, a higher standard of efficiency being required for provisional officers

in the regular service, whose commissions would become permanent with the lapse of time, than for the temporary officers. For the latter a degree of competence to perform the duties of their rank in warfare was selected in the beginning; but, later, when it was seen that the number of available officers was less than the requirements of the army, the judgment of the board was tempered by the possibility of finding better material to replace the man under a charge of incompetence.

It was a singularly oppressive duty to bring a recommendation for dismissal, so disastrous to the feelings of young men who had offered their lives to their country; but, in the face of a thoroughly trained and experienced enemy, the retention of other than efficient officers would have been a betrayal of our private soldiers and of our cause. The criticism has been made that the testimony of officers superior to members of the boards was admitted, and that this testimony exercised undue influence on such boards. In my experience, such charges are unsustained. I remember that the testimony of our forceful brigade commander was, upon occasion, held insufficient, and that by a

board on which his adjutant sat as a member; on another occasion, a defendant arrested by order of the commander-in-chief, through whose initiative the proceedings were brought, was found competent to hold his commission.

In the earlier sittings of these boards the only recommendation the boards were allowed to make was whether or not the commission of the officer in question should be vacated. Later this rule was modified, and the boards could recommend the transfer of an officer to some other duty.

In the rush of the training camps it was not only natural that commissions should be issued to men incapable of holding them but that they should be issued in a branch of the service for which the officers were not qualified. In the artillery, for instance, a certain proficiency in mathematics is indispensable; and no degree of leadership will enable a man to figure his firing data, or to regulate the firing of a battery from a flank. On the other hand, an artillery officer does not need the same excellent degree of physique required of an infantryman. A man can be a very useful junior officer on the staff without possessing in any de-

gree the qualities of leadership. Indeed, within the same arm of the service different qualities could be recognized. I recall one man who failed as a telephone officer but who became the chief of operations of a brigade and actually improved upon the firing methods of the French artillery. Another artillery officer, who had failed to shine elsewhere, acquired distinction while operating in liaison with the infantry; and he was not one of those who forgot his mission to lead an infantry platoon in assault.

It certainly was not true in the division that permanent officers in the Regular army were held to a lower standard than those of the reserve. From one regiment, two colonels, a lieutenant-colonel and a major were ordered to the rear. It is a fact, however, that gross incompetence received no severer treatment than deprivation of temporary rank. The Regular army still contains officers whose utter incapacity was demonstrated on the battlefield, and the dangerous rule of seniority is raising them to positions where they can do more damage in our next war.

The Regular officers were scrupulous about

maintaining for their subordinates from the Reserve corps all honors rightfully earned. I remember an instance where a first lieutenant of the Reserve corps had come into command of a battery and exercised great ability. The corps staff, perceiving that there was a captaincy vacant in the regiment, assigned to it a regular captain, an artilleryman by profession and a graduate of West Point. The colonel of the regiment, himself a professional artilleryman and an academy graduate, refused to supersede the reserve lieutenant and assigned the new captain as second in command of another battery.

It seemed to me then, and it seems to me now, that the Germans should have adopted a policy of smashing each American division as it appeared in line. This would not have been difficult. It is simple to destroy one division by massing against it sufficient materiel and men. When the unit is raw, the operation becomes elementary. If the Germans, therefore, had smashed the 1st division, and then the 2nd and 26th and 42nd, the original American divisions that went to France, it not only would have kept these future assault

divisions from ever maturing but it would have broken up the entire scheme of instruction which made our participation so decisive in the summer of 1918.

We should have had to delay putting our divisions into line until we had a sufficient number to prevent concentration against any one of them. This would have meant delay, and delay is one of the great dangers of war. I never have learned what reason, if any, guided the German high command. Perhaps it was devoted to the principle of major maneuvers and was against all other considerations. Perhaps it feared to stir up the American people as early in the war the English people had been stirred. At all events the Germans did not interfere with our raw divisions, and this enabled them to perform a threefold mission which led to the German undoing before the following winter.

This triple achievement was: The green American divisions in line relieved the worn and thoroughly experienced French divisions and allowed them to rest; they gained the experience of warfare, which can come only from actual fighting,

without heavy losses, and they constantly wore down the trained and tired troops opposed to them.

One general tribute may be paid to our senior officers. They were full of fight.

Said one commander: "I don't want to hear any talk of German atrocities. These complaints have made the Germans think the allies are afraid of them. When we hear the Germans complain of us I will feel that their morale is breaking."

It had been the custom for both sides, the Germans and the allies, to take as much rest as possible in what were known as quiet sectors. The Americans made these quiet sectors active. Unprepared to enter any large maneuvers, the American infantry, nevertheless, constantly harassed its opponents by patrols, trench raids and continuous sniping, and the artillery fired day and night on every possible target. Undoubtedly, the American troops lost more heavily than their opponents, but they had a large reservoir of reinforcements to draw upon, and their enemy had not. Our individual energy and nervous force was unweakened; that of the enemy was far spent

from four years of war. Finally, we had everything to learn from these operations, while we could teach our opponents nothing.

A great principle of warfare, announced by Napoleon and taught by Marshal Foch, is the wearing down of the opponent while holding out a reserve for the final blow. The green American divisions did the wearing down; they released trained reserves for the final blow, and, at the same time, transformed themselves into assault troops of a high order.

On the day the division repulsed the German raid on Remieres Wood, in the Toul sector, it received orders foretelling the expected German offensive.

During the winter the Soviet government of Russia made peace with Germany, and Roumania was compelled to follow suit. The Germans, therefore, were able to reinforce their western armies, retaining at the rear a number of troops for rehearsing the forthcoming battle. The German plan of operations was known. It was to follow the method employed in their recent success at Riga against the Russians, and was a

further development of the offensive used by Brusiloff against the Austrians in 1916; and, before that, by the Germans and Austrians on May 1st, 1915, at the Dunajec. The plan of attack contemplated a secret assembling of artillery and infantry, a short and brutal artillery preparation, in which the use of yperite gas formed an important function, and then an attack, not in lines, as had been used before, but by detached groups which were to infiltrate (slip between) the defensive units and fire upon them from the flanks, while further groups of Germans rushed them from the front.

The method of defense adopted by the allies was the occupation of a series of defensive lines by the front line divisions. Each unit of infantry and artillery was to defend its position to the last man, without hope of reinforcement, in the expectation that twenty-four hours would elapse before the German attack could overwhelm the last line of defense of the sector troops, which would allow sufficient time for reserves held at strategic points along the line to form behind the breach.

Authorities better informed than I will have to tell the world what was the matter with the allied command in the Spring of 1918. Possibly there was dissension among the allied commanders-in-chief; otherwise, how explain the supine sitting on the defensive and waiting for the blow to fall, tactics which every work on war has denounced as foredoomed to disaster? The excuse cannot be offered that the allies were waiting for the arrival of the American army. A large army was in the making in America, and the greater part of it had been ready for transportation to Europe for several months; but the transportation, while available, had not been forthcoming, as events subsequently disclosed clearly proved and explained.

The Germans attacked the 5th British army on March 21st, and quickly broke through on an extended front. The disaster galvanized the allies into life. The gap was closed as brilliantly and as skillfully as it had been opened.

The French 1st army was moved from Alsace to Picardy, and the 1st division, known in the army as the American division, was taken along.

An immediate counter-attack was projected, and while stopping for a few days behind the new front the division received instruction and practice in the assault. For reasons unknown to me the plan for the attack was given up. Probably the troops necessary to this operation were more urgently needed as reinforcements in Flanders or in front of Amiens.

The 1st division entered the line in Picardy while the German forward pressure was still in force. It entered a battlefield fairly covered with artillery on both sides, artillery which continued a duel for more than a month before the American and French artillery obtained the mastery. All kinds of guns, from trench mortars with a range of a few hundred yards to long naval guns firing twenty kilometers into the enemy's back areas, were constantly in action. All day the opposing artilleries fired to destroy each other, or upon targets which revealed themselves to the battery observers or to the balloons. All night they fired on roads, paths and stream crossings, to impede the advance of supplies, ammunition and reinforcements; day and night they poured their

shells upon trenches, villages and woods, to rob the enemy of sleep, shatter his nerves, and kill him. The country behind the lines was made more deadly from artillery fire than the front lines, which were spared to avoid the accidents of short firing into their own infantry. The infantry, however, indulged in continuous fighting with machine gun, rifle and grenade. All night long was conducted a partisan warfare.

"No Man's Land must be American," was the order of the commanding general, and our infantry made it so. Enemy patrols were attacked wherever found, irrespective of numbers in either party. If the enemy remained in his trenches, he was sought out there. During the early days of the battle the Germans on our left unleashed an attack which made considerable progress for a while, and eventually some of our long-range guns were brought into action; but so concentrated were we on our own problem that hardly a man today remembers the episode.

We had learned much in the Toul sector, but were still lacking in that knowledge which saves

life. We lost three men to one lost by the French divisions on either side of us.

A splendid aviation squadron to assist our heavy artillery in counter-battery was furnished by the French, and little by little our artillery superiority grew and the German batteries were destroyed or withdrawn. One battalion of American 155s was credited with the destruction of ten German batteries. It lost no guns from enemy hits, but two were blown up and several were worn out from continuous firing. The American batteries were heavily manned. It was possible to have two shifts of gunners, working twelve hours each, and still replace exhausted men with fresh groups from the horse lines. For the officers, however, there was no rest, and the excessive fatigue revealed the greater combatant value of young men. Officers around forty years of age—and there were a number of gallant spirits of that age who had sought commissions as junior lieutenants—wore down under the strain, while boys in their early twenties, whose military value had appeared much less in the training period, on the march, and in the early days of action, became

red-eyed and pale, it is true, but evinced no diminution of vitality.

Early in May, German resistance was so far weakened that the French undertook the offensive.

The German line had stopped and was holding a series of naturally strong points. The policy of the allied high command was to take all of these points so as to leave the enemy no points of departure for new attacks, and, likewise, no bases of defense for our future offensive.

Grivesnes was stormed by the French, our artillery participating. Soon afterwards it was confided to the senior officers that a great allied offensive was to start at the end of May to drive the Germans from their positions so dangerously near to Paris and too close to Amiens. The general plan was for three divisions to attack along the line we held and advance eastwardly; and three days later twenty divisions were to move north from the front at Lassigny. Later, the plan was changed to an attack by three divisions only; but when the assault was finally made the 1st division infantry made it alone.

The attack was of the kind, carefully prepared and suddenly executed, which had been introduced by the French at Verdun in the previous summer. Great quantities of artillery were brought up to reinforce that of our division. Batteries of trench mortars were installed to destroy all life above ground in the village of Cantigny; guns of 220 mm. caliber were to demolish all the cellars; two batteries of 380 mm. guns (approximately eleven inches diameter) were to break into a tunnel known to exist in the old château, and a hundred 75s were to put the rolling barrage before our infantry. French tanks were to lead in the assault and French flame throwers were to destroy any defenders who insisted on fighting to the last from underground shelters.

The plan of battle was approved by the French army corps under which we served, and the artillery plan was formulated by officers specially detailed for this purpose. The scheme was an education in itself, and the method of putting it into execution was a novelty to the American officers. We had been brought up under the system whereby orders were issued by a superior authority and

were carried out by subordinates, without question or comment. Rather than speak back to a superior officer, our batteries had more than once fired at targets designated by the higher command, but which were known to the battery and battalion commanders to be behind their range.

For the assault on Cantigny the artillery field officers were assembled and written instructions were issued to each. The plan was explained and a general discussion invited.

The American officers sat silent while certain French commanders made such comments as appeared to them reasonable. Comments and criticisms alike were received amiably. Some criticisms were waved aside; but others, which showed that the staff had been mistaken in its plan, brought amendments, thus encouraging some of the American officers to make observations upon matters particularly within their own knowledge. These were taken under consideration. Where batteries were given missions upon targets for which they had no observation, telephonic communication with observation posts overlooking these targets was provided. The meeting broke

up with every officer thoroughly understanding the work before him and sharing the general confidence in the plans, so fully explained and bound to succeed.

The assault took place exactly as scheduled. Every objective was taken. Every counter-attack was beaten off. The smallness of the losses proved at once the skill of the planners of the battle and the state of efficiency at which the 1st division had now arrived.

The moral effect of the Cantigny battle was infinitely greater than its tactical importance. Since early spring the Germans had been winning all along the line. Now, on the morrow of another great German victory, when the only hope of the allies lay in American reinforcements, American troops proved that they could throw back the enemy in formal battle.

The success of the 1st division on May 28th was repeated by the 2nd division on June 6th at Château Thierry. The American quality was proved; only numbers were necessary to assure the victory.

From Cantigny the 1st division was to go to

greater victories at Soissons and at St. Mihiel, and to carry the greater part of the burden of the second phase of the Argonne. It was to furnish one army commander, two corps commanders, seven division commanders, a commander of army corps artillery, and too many brigadiers, regimental commanders and important staff officers to catalogue. Thirty-two thousand of its officers and men were killed and wounded. Of those untouched by enemy shot, so many were promoted to command in other organizations as to leave but a leaven to inspire the replacements of officers and men.

So great a thing is an American division when thoroughly trained and disciplined.

CHAPTER V

GERMANY'S LAST OFFENSIVE

Before taking up the larger operations of American troops, which were now arriving in France in great numbers, it is necessary to review the course of the war throughout that year.

The year 1917 closed with Germany once more successful on all fronts. In the east Russia had gone bolshevik and made peace, a peace which Roumania was compelled to follow. Italy, badly routed, had reëstablished her lines only with the help of two hundred thousand French and English troops. On the western front the Germans had repulsed both the French and English offensives. The French attack was stopped, with heavy losses to Nivelle, within forty-eight hours. The British offensive proceeded through the month of August, but gradually lost its momentum, and it wore down the British army, not yet sufficiently developed to conduct a major operation. Captured German documents attested to the bravery of

Haig's troops, dwelt upon the inaccuracy of his artillery, and exposed the unskillfulness of the British commanders.

At the end of the year several small actions conveyed important military lessons to those who might be conversant with the facts. At Verdun and at Malmaison the French, striking for limited objectives, made attacks whose brilliancy demonstrated that at last France had competent commanders, who had discovered how to co-ordinate the operations of troops of the different arms equipped with modern weapons. They formulated the principle that "the artillery conquers the ground, the infantry occupies it." The German defenders, both infantry and artillery, were annihilated by overwhelming attacks of French artillery, secretly concentrated. The French infantry mopped up what was left, organized the occupied ground, and held it against counter-attacks.

The British assault on Cambrai in November was an experiment with a new weapon, and it succeeded beyond all expectations. A large number of tanks and a supporting force of infantry, which events proved to be inadequate, were

launched in an early morning surprise attack with little artillery preparation. They easily broke the German line and penetrated a number of kilometers, but the troops were insufficient to exploit this startling success. When stopped, they occupied a new line in the form of a small salient. The German general, Von der Marwitz, immediately concentrated his reserves and counter-attacked. Without tanks and massed artillery, his success, nevertheless, was complete. The English were driven back in confusion, and the line was only restored by the arrival of hastily summoned French troops, who made one of those long marches that no other allied troops, because of incomplete training and their inexperienced staffs, have been able to perform.

A valuable lesson should have been drawn from this battle by any soldiers informed of its details. Unfortunately, the military censorship had thoroughly absorbed the conviction that it must publicly announce all actions as victories. This time it also misinformed its allies. American headquarters cabled Washington that Cambrai was a moral and material victory. I happened to be at

British headquarters the day of the German success at Cambrai, and I told our staff what actually happened. The official British account, however, was accepted.

If Cambrai had been recognized for what it was —a British defeat, and nearly a British disaster— enough pressure might have been brought to bear to obtain the shipping necessary to transport our army to the western front before the disaster of March, 1918.

Only in the southeast did the year 1917 end more favorably to the allied cause. More successful in diplomacy than in battle, the entente brought Greece, whose government was pro-German, into the war on its side. It should be borne in mind that after Germany had defeated and was overrunning Serbia, the allies invaded northern Greece to prevent the Germans from making a connection with that country and using Greek ports as submarine bases. Under the protection of the invading armies a revolution was staged by that wiliest of statesmen, Venizelos. King Constantine, brother-in-law of the German Kaiser, was compelled to abdicate, and his son, Prince

Alexander, was placed on the throne. A republic probably would have been established but for the opposition of English royalists, who were not anxious to see a monarchy destroyed to make room for a republic.

In December, 1917, the British defeated the Turkish army in Palestine.

The incoming year, therefore, saw the French and English standing opposite the Germans, and subsidiary armies facing each other in Italy and Greece. Everybody knew that the Spring and Summer would witness a tremendous, if not a decisive, campaign on the western front. Germany had available the army which defeated Russia and was preparing to bring it across Europe by rail. The allies had the American army, its preliminary organization and training in America accomplished, to bring across the Atlantic, to equip it with modern weapons, and give it final instruction at the rear and in the trenches. Here was reproduced on a grand scale the oft repeated situation of two hostile armies in contact and awaiting the arrival of reinforcements which would decide the fate of the battle.

German troops now marched to the guns while American troops were left fuming in America.

The 1st American division was moved to France between June and September, 1917, and was followed, in order, by the 26th and 42nd. The 2nd division assembled in France during the winter, and the 41st crossed the ocean early in January. This rate of progress was more in keeping with America's pre-war unpreparedness than with the glorious rising of the nation which followed Field Marshal Joffre's embassy.

The fault was not principally American. True, our newly constituted shipping board did not function well. Resisting the demands of the military authorities, it devoted a large percentage of its shipping to commerce. This conduct was more reprehensible than injurious, however, because the tonnage at its disposal was small. Troops could not be moved in quantity except in British bottoms, which, from the beginning of our overseas movements, our general staff in Europe had been negotiating unsuccessfully to obtain. The British held back.

M. Painleve, the former French War Minister,

tells us that high officers of the British army thought they could win the war before American troops arrived, and with characteristic sporting instinct wished to carry off the victory without assistance. The war, however, had made overwhelming demands on British shipping. Merchant ships had been used as breakwaters; great numbers had been sunk by submarines; many had been commandeered to carry munitions, war supplies and troops to England, to her allied countries and to her columns of conquest in Asia and Africa. Only a small percentage of her total was left to maintain her foreign trade and capture that of Germany.

It is the traditional policy of England, while engaged in European wars, to lend only such help on the continent as may be necessary to secure the victory, and to bend the rest of her efforts to extending the British empire throughout the world.

With the British army in France so confident of success, it was unreasonable to expect England to deprive herself of shipping to bring into France an army which would detract from British importance at the peace table.

Thus January and February and the first three weeks of March went by with only one hundred and fifty thousand American combatant troops in France, and no movement on foot to accelerate their transportation. Less excusable was the situation on the actual battlefront.

Every general officer in each allied army was sufficiently read in the history of warfare to comprehend the disadvantage under which two or more armies under separate commanders labor when they face enemy forces operating under a single commander. Even officers who had not studied military history hardly could have failed to see how the united German command for four years had resisted and defeated greatly superior numbers of allies, divided as they were into separate armies under generals independent of each other. Yet so shortsighted in real patriotism, which ought to look only for the ultimate success of their country, and so absorbed in personal glorification, were the men responsible for the military control of the war that, rather than become subordinate one to another, they in-

sisted upon maintaining a military relation doomed to defeat.

Looking back on the days of March, 1918, it is strange to recall how confident we were of throwing back the inevitable German attack. We knew that the Germans were training armies back of their lines for the decisive assault; we knew in general the tactics they proposed to employ. We knew that the Germans had successfully broken the Russian, Serbian and Italian fronts, and we had learned of their new mustard gas through bitter experience. Yet, each army on the western front felt that the Germans could not break through it!

What happened on March 21st is known. In spite of air patrols, of trench raids, and of allied spies, the Germans succeeded in marching a great army through a territory inhabited by a French population hostile and eager to furnish information to their countrymen, and completely surprised the British 5th army.

They were well informed of the location of the British organized defenses and batteries. Before the assault these were overwhelmed by yperite

gas, the effects of which continued long after the bombardment had ceased, allowing the German artillery to turn its full force to the protection of the attacking troops.

The British defeat was complete. The way was open to Amiens. The Germans did what the allies had failed to do under more favorable circumstances—they completely broke the trench system and annihilated the defending army. One British general, believing all was lost, maneuvered his troops as though to protect the broken right flank of the British army, apparently forgetting there was a gap in the common front that must be closed to avert an allied disaster. In momentary panic, he acted as if his only thought was to enable the British army to get back safely to the seacoast.

Then, with victory in Germany's hands, the French army performed a maneuver as extraordinary in its way as the German attack, and closed around the hole in the line. Nearby troops marched to the battlefield with unprecedented speed, more remote troops moved in camions, and an entire army crossed France by rail from

Lorraine. Of this army the American 1st division formed a part.

It seems to me that the result of the battle of March 21st was the inevitable consequence of a situation which allowed an army, organized and trained through the years, to devote its entire attention to an army built up during the war. I have no doubt the same thing would have happened to the American army, in the same position. Only the French could meet the Germans on even terms, and this because they had organized for war as long and as carefully as their traditional foe.

The desperate situation galvanized the torpid allied governments into action. An allied commander-in-chief was named. After March 21st there could be no doubt in what army the supreme command should lie. It was given to General Foch and *his French staff*.

Foch received the appointment because of the high opinion Clemenceau entertained for him. In many circles Joffre would have been the most welcome leader. Joffre, however, had a certain military opposition and he was much feared by

the French politicians because of his popularity.

I do not feel that the personality of Foch made much difference. What was needed was any one of a half dozen French generals educated in the French schools of high command, who had practiced during the years of peace the maneuvering of large bodies of men by rail and by road, and who had risen in the French army with a freedom of promotion for merit which did not exist in the English armies. If France did not produce any great general in this war, she did furnish a number of masters of technique and she certainly promoted officers who demonstrated unusual ability.

With the German drive stopped by the French just short of Amiens, and again in April at Kemmel Hill, the allied position was almost hopeless. A few more concentrations, a few more drives, and Germany must be victorious. The only hope of salvation was to get American help before Germany could strike again.

Commercial considerations being forgotten, shipping was produced as if by magic. A new and serious question, however, had presented

itself. Should the half-trained and imperfectly armed American troops be transported across the ocean in the face of a not improbable German victory, of which they could only be the spoils? If Germany should win before Summer, the American troops would not be in condition to assist in the allied defense; they would fall into the German hands as hostages, and they would not be available to defend the American seacoast from the attack of the victor.

I have an idea that many readers will scorn a suggestion implying so despicable a motive. Let them study the conduct of the allies during the war; the ratio between English troops in France and in England and the failure to support Russia in 1915.

America sent her troops. She did much more. She sent them as the allies needed them, and not as the ambitions of their generals dictated or as their own welfare required. Divisions were broken up and the infantry sent without its artillery. They were sent, not to enter quiet sectors for instruction in modern warfare, but to reinforce tired, hard-pressed troops on an active front. A

large part of them were put under generals and colonels of an army which had just been completely defeated.

The troops which went into action with the British were not raw troops. They were, for the most part, national guardsmen, many of whose officers had given their leisure time to military study. They had received preliminary training in the Mexican mobilization and had now been drilling for nearly a year. They had been practiced in marching formations, had received small arms and bayonet training, and had been taught infantry tactics so far as these had developed up to the Summer of 1917. They had not studied the use of the modern infantry weapons of assault, the trench mortars or infantry cannon. They had not learned the use of cover, which only comes from service at the front, and which can be taught with smaller losses in sector warfare. They were totally uninformed as to the methods of attack developed and perfected by the French at the end of 1917 and they were not accompanied by their own artillery, which should have been trained with them until they had reached the perfect un-

derstanding essential to the support of infantry if it is to be saved heavy losses in assault.

So much higher, therefore, is their glory, that without flinching they faced the strain of battle which the French higher command only required of the 1st division after three months of sector training, of the 2nd after five months, and of the 26th and 42nd after six.

After March 21st American divisions debarked in France in the following sequence: 32nd, 3rd, 5th complete, and the 28th, 77th, 4th, 27th, 30th, 35th and 33d without artillery.

On May 27th the Germans broke the Franco-British Chemin des Dames line and marched into the Château Thierry salient, to be stopped on June 4th by another army, hastily collected by General Foch, of which the American 2nd division occupied the key position on the direct road to Paris, while the machine gun battalion of the 3rd division went into action on the south bank of the Marne.

American troops were now called upon in numbers. The 3rd, 4th and 28th divisions were moved from British fronts to the Château-Thierry salient. The 26th was brought from Toul and put

into the front line, and the 42nd was taken from reserve at Baccarat and put into line near Reims. The 77th, 82nd, 35th and 32nd divisions were training, relieving divisions already trained, and wearing down the Germans in the quiet sectors.

The German advances had stopped, forming a series of salients projecting into our lines.

From the days of short fronts and short range weapons, salients have been well recognized weak points for the reason that the adversary could concentrate a heavy fire upon them from several directions and confuse the defenders by simultaneous attacks on the different fronts. In the early part of this war, although ranges had increased enormously, the lengths of fronts had increased in even greater proportion, and many salients were created and held with impunity because they were so much greater in extent than the range of the artillery used in the early period of the war that it was impossible to concentrate fire upon them. It seemed as though the old principle of tactics no longer held.

However, by the Spring of 1918 the French had armed themselves with a great number of mobile

guns ranging nearly 20,000 meters. With these they surrounded the Cantigny and Château-Thierry salients. The divisional artillery fired to its extreme range. From there on the 155 longs took up the mission. A small semicircle which the longs could not reach was attacked with special cannon of still greater range and with aerial bombardments. Nowhere in the salients was there safety or rest for the Germans. Advancing to the front line or returning to rest, they were compelled to pass mile after mile over roads subject to artillery fire.

The effect of this artillery fire must not be forgotten in casting up the reasons for the German collapse.

On June 7th the Germans attempted another grand attack on the line Montdidier-Noyon, and here they met their first complete check. The French had notice of the plan and adopted a special form of tactics to defeat it. Strong points were skillfully concealed and held in force. German troops passing between them, according to their new tactics of infiltration, were caught under the concentrated artillery fire of the defense.

When the weight of the German attack forced back the garrisons at the strong points, these retired in good order upon a line of supporting troops, drawn up beyond the range of the German barrage, and fully prepared for battle. The attack was stopped, and the 10th army, under General Mangin, advancing from billets in the region of Beauvais, counter-attacked on the German right flank and drove it back in disorder.

This was the first big allied success and it was made possible by the valor of the French troops, the tactical skill of their leaders, and the presence of five hundred thousand American troops, which released an equal number of French veterans from the quiet sectors to thicken their defensive organization.

With the entrance into line of the American army in force the hour for German victory had passed.

Disturbed by rumors from the Fatherland, and hurried by the rapid development of the Americans, the German staff began to falter. The preparations for the attack around Reims were not well concealed. Field Marshal Foch was

fully informed of them and massed his defensive troops. Not only Americans, but English and even Italians, were brought to the battlefield. Even the exact hour of the assault was learned, and the French defensive bombardment was started one hour before the German fire. Surprised with munitions for the artillery preparation piled beside the guns, with columns of troops advancing into position along heavily shelled roads, it was too late to stop the attack.

General Gouraud withdrew his troops from the front into three defensive lines. He ordered that the first line, when hard pressed, should fall back on the second, and the third line troops should act for counter-attack, or for defense of the last position, as developments of the battle might dictate.

In the first line only groups of machine gunners and signalers were left. They were to notify the command of the start of the German assault and keep the defensive artillery informed of its progress, so that the heavy barrage could be kept constantly on the advancing Germans.

From Château-Thierry to Verdun this attack

stopped either at the advance or at the intermediate line, excepting just west of Reims, where the German column thrust back its opposition and continued to progress towards Epernay. Nowhere did Americans give way. The 42nd and 3rd divisions particularly distinguished themselves.

Not many troops on either side were available for maneuver, but on the allied side there remained at the disposition of Marshal Foch the best troops in the war, the 1st and 2nd American divisions and the French Moroccans. These three divisions were formed into a special corps under General Berdoulat, and, assisted by a mass of little, fast French tanks, debouched from the forest of Villers-Cotterets at daylight on July 18th. By nightfall they had driven seven kilometers into the enemy's line. Without reinforcement or relief, they attacked again the next day, and on the 20th captured Berzy-le-Sec, cutting the road from Soissons to Château-Thierry.

The German advance on Epernay, made in the hope of capturing Reims and flattening out the salient, had to be abandoned, and their resources devoted to stopping the great counter-attack

which threatened to capture their whole army. Scotch and French troops relieved the Americans and the Moroccans, but German reinforcements in equal numbers had been rushed to the scene and the allied advance was stopped.

CHAPTER VI

A FEW TECHNICAL POINTS

Shortly after the battle of Cantigny I was promoted to the rank of lieutenant-colonel in my old regiment, now the 122nd field artillery, and upon its arrival in France was assigned to it at the request of the regimental commander. Neither in the regular army nor in any foreign service have I seen a body of men reach a greater state of efficiency before they had undergone the experience of battle. The regiment was in a splendid state of administration, of discipline and of morale. The officers, who had come from the cavalry more than a year before, had studied their new technique to good effect.

Upon the order of the commanding officer I prepared a course of instruction, drawn from eight months' experience at the front, which was to supplement the instruction in fire adjustment given by the school.

I insert these instructions, written in the midst

of war, primarily for the purpose of illustration. In later chapters I will refer to untrained divisions and green divisions. Our inexperienced troops were ignorant of many military accomplishments not touched upon in this simple course. The points I sought to cover were essentials in which most of the officers who had come to the 1st division from America and from training schools in France had either not been taught or had totally failed to comprehend.

The immense blockades on the roads during the Argonne fighting were primarily due to ignorance of road discipline. The hunger of which so many complained was due to their ignorance of the conservation and use of food.

INSTRUCTIONS FOR TROOPS ABOUT TO ENTER THE LINE

Upon leaving the training camp and entering upon active duty, it is necessary for junior officers to appreciate the immensely greater responsibilities which they incur. In a regimental camp, the commanding officer or, in all events, the field officers between them, can personally supervise everything and can personally direct and correct whenever necessary. On the other hand, when deployed in action, when spread out on the

march and even when billeted in towns, this immediate supervision becomes impossible. *Enforcement of orders and discipline devolves upon the junior officers unaided.*

The senior officers can only issue orders and inspect to see if they are properly carried out and *if not, to proceed against the officer who has failed to carry them out.*

CHAPTER I. The March.—The rules for conducting a march are the following:

(1) All vehicles must be securely and neatly packed.

(2) When moving, all vehicles must be kept at all times at the extreme right of the paved road, in order to allow traffic freely to pass the column. When halted, the vehicles will be pulled clear off the road, whenever possible.

(3) They must be formed in groups. Generally, ten vehicles form a group and the distance between groups is fifty meters, to form a pocket in which faster vehicles may enter when meeting traffic, or while passing the train. A red disc is placed on the rear end of the rear wagon of each group.

(4) Trains will never, under any circumstances, be stopped in towns.

The foregoing rules are elementary, but because of their simplicity are frequently neglected. Their observance is absolutely obligatory and must be enforced, if necessary, by severe disciplinary measures against negligent officers. The next two rules are not easily observed. They are:

(5) Never allow the road to become blocked.

(6) Never lose the way.

Most frequent causes for blocking of traffic are becoming mired and driving off the paved road. These faults can be minimized with well trained drivers, but there is, on narrow or bad roads, a constant opportunity for the initiative of the commanding officer. For instance, when coming to a steep hill, or to a soft length of road that threatens to stall the train, attach additional horses to each vehicle before it enters the bad spot. It is easier to pull a moving vehicle through a muddy hole or up a steep slope than to start one once stalled. In the case of a sharp turn in a narrow road, it is desirable to unhitch the lead horses; sometimes all except the wheelers may be removed. Time taken in these little operations is inconsequential compared with the long delays due to stalling of a gun or park wagon.

On the march to Cantigny two wagons getting off a bad piece of road delayed a regiment of artillery eight hours.

Whenever a train becomes blocked for any reason, it is the duty of a superior commander to investigate the conduct of the officer immediately in charge, to ascertain not only whether he was guilty of negligence but whether he exercised all the initiative and energy which might be expected and required of him.

The final injunction (6) is the most important, the most frequently violated, and the one whose violation is the most fatal in its consequences.

The rule is absolute.

An officer travelling must never lose his way.

An officer who violates this injunction must be considered *prima facie* guilty of a very serious offense, requiring the strongest kind of evidence to overcome his presumption of guilt.

It is not necessary to be lost. Sometimes a road is easy to follow and, therefore, invites carelessness. Other times a way may appear so difficult as to invite discouragement. The consequences of a mistake may be so serious, in a military way, that mistakes must be made serious for the offender. It will be remembered that many battles have been lost because an organization, or even a messenger, violated this simple rule.

Precautions to be taken include a careful study of the map, a careful reading of all signboards along the road, and, when doubt exists, an interrogation of inhabitants and scouting along different forks of a doubtful crossroad.

A train once committed to a wrong road may be compelled to a long detour; may run to a blind end; may have to be left out of an operation entirely. It is, therefore, indispensable that a train shall have competent scouts pushed sufficiently far in advance to establish the correct direction before the column reaches the crossroad.

Each battery will have a machine gun mounted on a wagon for use against airplane attack. The machine gun detail will be charged with keeping a sharp look-

out for hostile airplanes. Whenever a hostile airplane is reported within the vicinity of the column, the column will be withdrawn under trees, if possible, otherwise halted on the road until the airplane has passed. All mounted men will dismount when at a halt. On the march, drivers will be required to walk about half the time.

Officers should be taught to locate the North Star by the Big and Little Dippers and by Cassiopeia. They should accustom themselves to follow the course of the sun by day and of the stars at night. They should also memorize the general course of the rivers of the neighborhood. Watches, compasses, and maps are essential to scientific warfare, but one should be prepared to get along without them if necessary.

CHAPTER II. Occupying Positions.—Occupying battery positions divides under four heads. The first is in the case of the relief of a sector. In this case a battery generally takes up the position of the battery it relieves. Ample time is furnished for reconnaissance of roads. The relief is made at night in order to avoid observation by the enemy, and if traffic on the road permits it is desirable to separate the guns by an interval of five minutes' march to allow each gun to unlimber and the horses to move away before the next gun arrives in position. This plan will minimize confusion in case fire comes on the battery during the relief, or in case of fire along the road of approach. It is the duty of the outgoing battery to turn over to the incom-

ing battery all information, of whatever nature, pertaining to its battery position. An officer of the outgoing battery remains with the incoming battery for a day or two; the incoming battery commander should avail himself to the fullest extent of the information of the outgoing officer. Pride or a false fear of appearing ignorant cannot be tolerated.

The second case of occupying a battery position is as a reinforcing battery. In this instance, a number of the available battery positions will have been noted by the staff, and there will be offered to each groupment, or group, either a certain number of alternative battery positions from which to select, or the locations for batteries will be indicated by coördinates. Sometimes no opportunity for reconnaissance can be given the battery officers. Hence, absolute familiarity with the map is essential.

It must be borne in mind that with the immense quantity of artillery used in this war, individual batteries must be located according to a general plan, the needs of the individual battery giving way to the greater needs of the whole. At the same time, group and battery officers have much better opportunity for determining the very best location for a battery within a limited area and much greater interest in so doing than has the staff. Therefore, when a battery commander finds a position which he thinks will allow him to perform all his missions, will not interfere with any other battery, and will afford him greater protection than the

one allotted him, he should report this fact to his immediate superior. Every battery and group commander studies the ground in his area with great care so as to endeavor to get absolutely the best location and arrangement of his guns. The Plan Director is a map of extraordinary exactness, but it must be remembered that the contours are separated by five meters and cannot portray the small accidents of the ground which furnish the best defilade both from view and from fire.

The third case is that of an advance. The conditions are much the same as in reinforcing; the batteries are moved according to a plan of operations. The difference is that the accidents of battle may disarrange the plan and call upon the immediate commander to display initiative and originality.

The fourth case is of batteries going to fill a gap in the line, as at Montdidier and Château-Thierry. This condition more nearly approximates the methods set down in our drill regulations than any of the others. It may be pointed out that in this situation the enemy's infantry has preceded his artillery and that, as less counter-battery is to be feared, less attention need be paid to defilade and more to the selection of positions which facilitate the quick opening of fire.

CHAPTER III. Emplacements.—Work on battery emplacements should be begun, when possible, before the arrival of the battery, and to this end the battery and group commanders should endeavor to send forward working parties to get some sort of protection

before the battery arrives. Work on the emplacement must continue as long as the battery occupies the position. Men should be encouraged to take pride in their skill in constructing battery positions and not to feel disappointed when their well-built position must be evacuated.

It is a simple matter to make a protection against shrapnel and shell fragments, even of large caliber shells. When a gun crew is so protected that it cannot be put out of action except by a direct hit by shell, there is little chance of it failing to perform its duty in battle, even if under fire. With time, tunnels to shelter gun crews can be driven to a sufficient depth to render them proof against counter-battery fire.

The method and order of construction of battery positions are laid down in general orders. It is well to call the attention of battery commanders to the fact that the battery commander's command posts should be at least 100 meters to one flank of the guns.

CHAPTER IV. Defilade.—This is the most difficult part of the artillery and, next to correct shooting, the most important. It includes the selection of a position, the artificial improvement of this position, and the abstention from doing things which will reveal the position to an enemy on the ground or in the air.

An ideal position for 75s would be along a road of irregular tracing not carried on the map; in some broken ground in which the wheels, trail and gun crew can be located in a depression where the natural sur-

face of the ground reaches up to the muzzle and forward rises a mask which does not interfere with the minimum range required for the tactical use of the guns; for the howitzers a position along a similar road but behind a hill, the higher the better, with a slope of 30 degrees, or behind a steep bank, or in a cut or ravine.

The 75s, because of their small size and flash, can be very effectively concealed among bushes, hedges or orchards. The howitzers are not as easily concealed, and because of their high angle of fire may be placed in woods or behind hills where the field pieces could not operate. In any battery area a number of sites will be found, each possessing various advantages and disadvantages. It is a part of the function of an artilleryman to balance the advantages and select the most suitable.

Battery officers should take every opportunity to study the conformation of ground and to pick out likely battery positions. It is only by perfect familiarity with ground conformation that officers in battle can rapidly select the best available position. They should beware of small woods carried on the plan director. If their presence in such a wood becomes known, their cover becomes a target, a point which can be used by the enemy to measure ranges and deflections and an object of good visibility for airplane observation.

The battery position selected, the problem of artificial concealment [camouflage] presents itself. This is the subject of vital importance. One of the greatest mis-

takes an artillery officer unfamiliar with the subject can make is to minimize it through egotism. A study of enemy counter-battery fire upon any groupment will reveal the fact that one or two batteries receive most of the punishment. This is due to bad camouflage and bad defilade discipline in the batteries concerned.

Any battery commander can learn the principles of camouflage, and by availing himself of talent in his organization can obtain a great degree of invisibility. The principle of camouflage is to have the ground upon which the battery rests reveal to aerial observation or photography little or no change.

First, the four pieces should not be placed at regular intervals or in line; second, no shadows should be thrown; camouflage nets should be sloped so that early morning sun and the late evening sun will not cast shadows. Existing shadows should not be suppressed; for instance, if a battery is located in a quarry the camouflage should not cover the side of the quarry. Reflection of light is to be avoided; camouflage should not be stretched tight and flat. Black holes should not appear, for which reason curtains must extend over embrasures and back of the emplacements and over ammunition shelters. It is found desirable to have the bottom of the camouflage net about two feet from the ground. Where foliage must be cut to permit the firing of batteries, this must be done with careful study; the cutting must be (1) reduced to the absolute minimum; (2) not nearer to the ground than the requirements of minimum

range demand, and (3) not regular in shape. Batteries in woods and hedges will be greatly helped in their concealment by use of freshly cut branches set on end, either in the ground or in wire netting above the pieces.

The camouflage erected, the battery commander cannot dismiss the subject. Camouflage has the habit of falling into disarray, like the clothing of a schoolboy, and in order to look natural needs to be readjusted to meet the different conditions of light, like the complexion of a mature beauty. If one of the officers shows an aptitude for the subject, he may be designated, in addition to his other duties, as camouflage officer; otherwise this duty must be confided to a suitable non-commissioned officer. The camouflage officer, or non-commissioned officer, must be constantly wandering around the position looking for faults and for opportunities of improving the camouflage. No greater evidence of military proficiency can be given by a battery officer than by keeping his battery in condition of good defilade.

The battery commander must determine the avenues of circulation. If the battery is on a road, the kitchen must be put down the road in one direction and the latrine in the other direction. Under no circumstances must men leave the road except to perform duty. If one or more paths are absolutely unavoidable, they should be wound irregularly around trees and bushes or along the border separating two different crops in a field. Cutting of corners must be forbidden under severe

penalty. It is desirable to fence the permitted paths with barbed wire, and, until this is done, to station path sentries with orders and to compel every one, even senior officers, to obey them.

The necessity of keeping out of sight must be thoroughly explained to the men, and discipline must be used whenever necessary to enforce this rule. Men in the open must take cover immediately upon a hostile airplane being reported. It is to be borne in mind that it is much easier to keep men out of the open than to get them in from the open in time to prevent their being seen. While batteries are generally defiladed from enemy view, lengths of roads leading to them are always in enemy view. Circulation along these roads may reveal to the experienced enemy the locations of batteries themselves invisible. The battalion commander, therefore, must control such circulation.

Smoke is a frequent means of betraying locations. In clear, windless weather, smoke columns can be intersected from enemy O. P's. and their location determined to a yard. An example of the penalty of poor smoke discipline was that of a battery kitchen in a large forest of tall trees which received a volley of forty shells perfectly aimed.

Even the best defiladed battery will be located by intersection of its flashes or by sound ranging, if it fires alone. A sufficient volume of fire will confuse both the flash spotting and sound ranging sections of the enemy. Thus, in general action, batteries are not apt to reveal

their presence, and the chances of being located by flash spotting and sound ranging may be minimized in registration by having several different batteries fire at the same, or approximately the same, moment; during fire for destruction, by having several destructions carried on at the same time. In registration, this is best accompanied by coöperation between battalion commanders; and in fires for destruction, must be regulated by the chief of the divisional artillery.

The enemy may be further confused by the use of roving guns. Individual guns, platoons or even batteries, in the case of the light artillery, are taken out of their regular position, moved under the cover of darkness and fired for a day, or a part of a day, from a temporary position, moving out again that night.

As a protection against enemy fire for destruction, the practice of separating the platoons by a hundred yards or more is coming more and more into use. In batteries of 155s, the separation of a battery into two platoons for firing is done more than half the time when standing on the defensive. Intervals between guns are also greatly increased, sometimes to as much as 100 meters.

The movement toward the dispersion even of the component units of batteries has been accentuated by the use of yperite (mustard gas). While the gas mask and oiled clothing give temporary protection against this gas, it is impossible for men to remain on the ground upon which any considerable number of yperite shells

have fallen. The dividing of batteries renders the disabling of an entire battery less probable, or, in any event, demands a double expenditure of enemy shells.

The battery command post also should be located far enough from the battery to be out of the yperite fumes. Alternate battery positions must be located and oriented, to which the pieces must be withdrawn as soon as the gas bombardment upon the position has ended. The pieces must be thoroughly disinfected, the clothing of men exposed to the yperite fumes changed, the men bathed in soap and water, and the clothing hung to let the yperite evaporate into a location where the fumes can do no damage.

Finally, in order to confuse the enemy, Quaker batteries will be made. These should not be too visible or they will not fool the enemy. If false flashes are obtainable from the storage park, they can be fired from these dummy positions. If they are not available, the unused packages of powder from the 155s can be fired by means of Bickford fuses.

CHAPTER V. Artillery Observation.—Upon coming into position, observation should be organized in the first instance by battalion. The batteries of 75s find observation posts where they can observe their barrage. The battalion observation post is located where it can get the best view of the battalion sector. The battery observation posts will report directly to the batteries observation of fire and barrage. All other information is reported to battalion headquarters. Ob-

servation posts of the 155s, not being concerned with the barrage, seek longer views. They will become valuable to regulate barrage if the enemy crosses our first line, and should be used to study the ground where such barrage would be put down. Their occupants should be ready to control the fire of the 75s on such barrage, if called upon to do so.

Where an O. P. has a special mission, as in the case of a battery observation post of 75s, one man will watch this field, while another performs general observation.

The number of the personnel occupying observation posts will vary according to the cover obtainable. It is desirable to have it not less than three nor more than six. Where an O. P. is in a position exposed to enemy view, details are changed every night and remain in the observation post for 24 hours.

Strict discipline must be used, if necessary, to prevent men from disclosing their persons or in any way betraying the O. P. to the enemy. A disclosure not only endangers the personnel but may lead to the destruction of the O. P. at the moment observation is most needed.

It is highly desirable to have the observation posts interconnected by telephone, as will be pointed out in the chapter on Telephone. In the absence of such line, the battalion observation posts can readily communicate with each other through the battalion switchboard and the lines connecting battalion command posts.

Upon occupying an observation post, the officer in charge will immediately select an object in enemy ter-

ritory about the middle of his field of vision, and which is accurately represented upon the map. This will be the zero line of his observatory. The instruments will be oriented with the zero of the lower limb laid on this point. The lower limb will be securely clamped. Observations from the observatory will thereafter be read on the mill scale: so many mills right or left (of Mont Sec steeple or Cantigny graveyard). It will be the duty of the personnel in charge of the observatory to see that the lower limb of the instrument is never moved, and to caution senior officers, who alone have the right to enter observation posts, as a further protection against a loss of the zero line. Stakes will be driven along this line which can be seen in thick weather and identified at night by means of luminous watch faces. If the observatory is occupied in thick weather, observation must be made according to the points of the compass until the weather clears.

As rapidly as possible the officer of the observation post will prepare a panoramic sketch and a visibility map of the field of view from his observatory. Each O. P. will be given the coördinates of the other O. P's. in the battalion. Each observer will visit all the O. P's. as opportunity offers, and will communicate directly with them when he sees something of interest which he thinks may be invisible from their observatories.

All matters of sufficient interest are to be reported immediately to battalion command posts, from which they will be relayed to the higher commands.

A diary will be kept in each O. P., divided into 24 parts, corresponding to the hours of the day, and all events of whatever kind not worthy of immediate report will be written down in this diary. This will include the fall of enemy shells and an impression as to their origin. If enemy shells pass directly over the observation post, this should be reported by telephone. The point of fall then being determined, a line is established within which the enemy battery lies. All occurrences deemed of interest to the battery will be reported immediately. Among these will be firing of any kind, with the observer's best impression as to the direction from which it comes; all activity, flashes, all smoke, all unusual noises within the enemy lines, any suspicious movements within our own lines, and particularly any signals from our infantry.

These will all be reported by reference to the zero line and to objects on the ground.

In case of enemy attack, the observers will report its progress and call for fire on vulnerable targets. If the attack advances far enough, the observers will have an opportunity for individual distinction. A few determined men in a concealed dugout may delay many times their number for an appreciable time.

Observers of different batteries, battalions and regiments will at need register the fire of any battery in the brigade. Where none of the observation posts is suitable to fire on any particular objective, use of the ground telegraphic sets of the infantry may be made.

The observer, accompanied by the operator, finds a location where he can view the objective. If the distance permits, the messages are sent direct to the antennæ of its battalion; if not, they are sent to the infantry command post, which relays them by telephone.

As rapidly as possible the regimental observation officer coördinates the observation posts of the regiment, and the brigade observation officer coördinates all those within the brigade. Upon occasion, O. P's. of different battalions, or even of different regiments, may be connected to regimental and brigade centrals, though this practice must be limited owing to the amount of traffic over brigade and regimental lines.

Because no two divisional sectors are alike, it is impossible to fix hard and fast rules for the conduct of observation. The efficiency of the observation system will depend on the skill and energy of the officers concerned.

It is to be borne in mind that while all the observation posts of the brigade are to be considered one system, the initiative of battalion commanders and observation officers must not be dulled.

The brigade has the use not only of the divisional artillery observation posts but is in communication with the infantry observation officer and corps observation officers. Frequently an uncertain report as to the location of an enemy position, or activity in the enemy line, from one observation system can be corroborated from one of the other sources.

Regimental and brigade headquarters will install additional observation stations, or move existing stations of battalions and even of batteries, when this will result in reducing the extent of the invisible areas.

CHAPTER VI. Artillery Telephones.—The scheme of artillery telephone consists of branching lines from brigade to regiments, regiments to battalions, battalions to batteries, and batteries to battery observation posts. Regimental headquarters are connected together, as are adjoining battalions and battery command posts; in addition, the units of 75s are connected with corresponding units of infantry.

With every telephone operator there will always be an orderly to be sent for any person desired on the telephone; in time of unusual activity, there will be two orderlies.

Telephone liaison will always be reinforced by visual signalling and by mounted or foot messengers. It is essential that all men of the liaison detail shall be familiar with all roads and paths between battery positions and battalion, battalion and regiment, and regiment and brigade.

The many diversions of attention, the many calls for men, the constant assignment of men to different duties, creates an erosion which wears away these organizations established at the beginning of a campaign. It is the constant, and perhaps the most important, duty of a battalion commander to see that these are continually renewed and that the organization will never find

itself surprised by the cutting of the telephone liaison.

Operation of telephones at the front requires a degree of rapidity, skill and accuracy far in excess of that required commercially. A few seconds lost by a delay, or a mistake, may cost many lives.

When two or more calls come at the same time, the first preference should be given to an observation post, second preference to the line of the senior command, third preference to a junior command, and fourth to a collateral line. This may be varied, according to the intelligence of the operator, when especially important news is expected from some source. All telephones will be tested every half hour in each direction. Operators will never call an officer to the telephone to speak to an officer of inferior rank. Officers below the rank of battery commander or adjutant will not ask an operator to get a party on the line, but will be given connection with the switchboard and personally ask for the desired party.

Lines are used only for official communication. Terrible things have happened because a telephone wire was being used for sociable conversation. The locations of friendly positions are never mentioned over the telephone, nor is any other information that might be useful to the enemy.

As the relative location of observation posts, battery and command posts vary indefinitely, so an indefinite number of opportunities exists to increase the telephonic liaison beyond that contemplated by the regulations.

For instance, two observation posts or batteries of separate units may be located so close together that a short length of wire may connect them. A battery of one battalion may find itself so close to the command post of another that an intercommunication wire can be made at a minimum of labor and material.

All officers interested in observation should seek opportunities to increase the amount of telephone liaison without an undue expenditure of wire. In this fashion, telephone liaison offers an opportunity for initiative similar to that of selection and camouflage of battery positions.

CHAPTER VII. Maps and Records in Command Post.—Each command post will keep the following records pertaining to its sector:

Maps showing the location of the command posts, battery positions, observation posts, telephonic and visual liaison; these last two, approximately exact. Threads are pinned to the map at the locations of the O. P's. Mill scales are made with a zero corresponding to the zero at the O. P. Thus reports from the O. P. are rapidly located on the map. Where any two O. P's. report the same subject, it can be located by intersections, visibility maps of the observation posts, fields of fire and dead spaces of the batteries.

A graphic representation of the normal and eventual missions of the batteries, such as barrages, counter-preparations, interdiction fires, counter-bat-

tery, and also the normal and the eventual zones.

This information will also be kept in the form of written orders. When any orders, in any form, have been superseded by others, the old orders will be destroyed to prevent possible confusion.

A list of ammunition, rations, horses, wagons, harness, etc., will also be kept at command posts.

CHAPTER VIII. Combat.—Offensive combat being at the will of the higher command, is precised in orders. Attacks, general or limited, are accompanied by a plan of artillery made in the army, corps, or division headquarters. The duty of the subordinate commanders is to give full effect to the plan of the higher command. Firing data are prepared in the batteries and checked in the battalions. Regimental and battalion commanders assure themselves that all orders have been read and comprehended by those intrusted with carrying them out. They assure themselves of the efficiency of their communications, and they follow the plan of action step by step, superintending its execution by their subordinates.

The daily activity of the artillery is determined in the division and corps, and is laid out in orders issued every evening for the following 24 hours. These orders specify:

1. Destructions.
2. Interdictions and harassing fire.
3. Concentrations.

The higher command determines the objectives to be

fired upon and divides them among the regiments in whose sector they lie. The regiments divide their targets between their battalions; the battalions between the batteries. The actual conduct of fire reposes in the battery commander. The major's supervision is merely to assure himself of the captain's competency. In case of incompetency, the remedy is a removal of the battery commander, not taking over the battery commander's duties by the major.

Defensive Combat. Fire called forth by activity of the enemy is defensive in cause, although it may lead to fire offensive in effect. The defensive fires are:

(1) *Counter-Battery.*—An enemy battery firing upon our troops is, in turn, fired upon by our artillery. This fire, as a rule, is ordered by the brigade commander or commander of the heavy artillery; but in the case of enemy's batteries whose location is known, and which it is desired to silence as often as they come into action and as rapidly as possible, authority to open fire may be given to the battalion or even the battery commander upon receipt of information that this battery is firing.

(2) *Reprisal Fire.*—When friendly troops are being fired upon by enemy batteries which for any reason cannot be counter-batteried, our artillery fires upon corresponding enemy troops. This fire is ordered by the commander of the divisional artillery, generally at the request of the organization under fire. Reprisal fire may also accompany counter-battery fire.

(3) *Offensive Counter-Preparation.*—This is a plan

of fire upon enemy organizations, trenches, command posts, batteries and assembly points. Its object is to break up enemy organizations before they can launch the assault. It is generally called by order of the commander of the divisional artillery, upon information of the assembling of hostile troops, heavy enemy bombardments, or other reasons leading him to believe an enemy attack is imminent. However, any commanding officer, upon receiving what appears to him sufficient evidence of a planned enemy attack, must not hesitate to put his artillery into action in his normal enemy counter-attack zone, or even, if he deems it justifiable, into one of his eventual zones. He will, of course, immediately pass the information on to his commanding officer.

(4) *Barrage.*—Artillery barrage is principally the work of 75s and the principal duty of the 75s. The line of barrage is laid down by the chief of the divisional artillery, who may also call upon a part or all of the 155s to participate. Barrage is delivered at the request of the infantry, either by telephone or signal; upon the request of the artillery liaison officer; or upon a call from an airplane, balloon or observation post; or when enemy bombardment or rifle fire leads any artillery commander to believe that barrage of his organization is called for.

In order to deliver defensive fire without unnecessary delay, trail circulars will be marked at the points at which the trail shall rest for each normal and special barrage and counter-preparation. The weather cor-

rections for each principal target will be kept up to the moment. The firing data for the different barrages and counter-preparations will be prepared separately for each gun and will be given to the chiefs of section. The executive's command for this fire are the name and number frequently repeated, as "Special barrage No. 2" or "Counter-Preparation No. 1." Each section lays its piece and begins firing immediately.

When a secondary barrage has been planned, the line of which runs across our territory and which is to be used only in the event the enemy takes our first positions, the firing data will be prepared as in the normal barrage, but it will be kept at the battery command post, in a place where it can be easily reached but not confused with other documents. It will be handed to the chiefs of section only at the moment it is to be put into effect.

Fire of opportunity is called for by an airplane, balloon or terrestrial observer when he sees enemy troops or transport within the zone of fire of our artillery.

The best results are obtained by personal understanding between elements of command rather than upon rigid orders which cannot cover all possible contingencies.

CHAPTER IX. Closeup Defense.—Due to a variety of reasons, among which may be mentioned the difficulty of moving the great number of batteries used on every front; the necessity of keeping horses far behind the batteries; the practice of shelling heavily the rear

areas, especially the roads; the use of aviation which will discover batteries retreating in the open, even when defiladed from terrestrial view; the efficiency of machine gun fire upon large targets, such as gun sections, even at long ranges; the growth of counter-attack as a defensive measure, and the greater means of resistance furnished by emplaced batteries, barb wire entanglements and machine guns—the closeup defense of batteries has assumed a more important aspect than it held before this war broke out. Therefore, defensive measures for holding battery positions have been elaborated. The battery commander will reconnoiter the ground and begin his preparations for closeup defense as soon as he occupies a battery position. The guns will easily sweep all open territory in front of them. Attackers will have to come up some defiladed space or around a flank. Battery machine guns will be so placed as to sweep such approaches, and ranges will be measured to all points from which rifle and machine gun fire can be directed on the batteries. Preparations will be made to move the pieces as occasion may warrant; especially to fire to the flank, where they may take a whole enemy wave in enfilade. Wire entanglements will be built around the battery; concealed pits will be dug for bombers; hand grenades will be drawn and distributed among the pits. Where several batteries are grouped together, the officer who commands them all (major, colonel or brigadier general) will coördinate the plan of defense. All the machine guns will be placed according to a common plan.

A veritable machine gun barrage even may be possible.

The howitzers are less capable for use in closeup defense than the 75s. For this reason the personnel has been furnished with rifles. It is not improbable that these guns will be firing on some target of great importance, such as a river crossing. In this case, the defense should endeavor to leave a sufficient gun crew (four or five men per gun) to keep up this fire to the last moment.

The skill and stubbornness of the closeup defense of battery positions may decide the fate of a battle. It may furnish an opportunity for the greatest individual distinction.

CHAPTER X. The Food Question.—One of the most vital elements of this war is *food.* In the first place, there is a shortage of food all over the world. In the second place, transportation is limited and avenues of transportation are limited. A soldier who wastes any food not only robs some other mouth but does his share uselessly to congest our means of transportation. The rule, therefore, must be rigidly established that every soldier, officer or man must consume all the food he takes. The cook must be instructed not to prepare any large surplus of cooked food each meal. He must be rigidly compelled to serve all leftover food at the next meal. He should be encouraged to prepare soup, which will use up his bones and furnish valuable heat in the winter and liquid in a palatable form, water being frequently unpalatable at the front.

Conclusion.—Less difficulty has been experienced in teaching officers the technique of artillery than in getting them to carry out the necessary works—to enforce the many rules of conduct which the making of war demands. An artillery officer is not a mere computer of figures or instrument man. He is primarily a commander. He must be ceaselessly vigilant to enforce compliance of all warlike regulations.

In the foregoing I imagine that army haters will find considerable "Prussianism" in the constant reference to "Discipline" and "Enforcement of Orders." Between the soldier and the pacifist, political or otherwise, there lies a chasm unbridgable because the former thinks, instructs and regulates in contemplation of daily peril and mortal combat, while the latter lives, breathes and has his being in exquisite comfort and perfect safety, determined never to risk life or limb or time for his country. The soldier imposes hard rules upon himself and his subordinates that his country may live. The pacifist preaches luxury of mind and body that he may profit at the expense of his fellow men. The civilian and the uniformed soldier lean, naturally, to the easy preachings. They do not comprehend the awful penalties of

disregarding military rule. To them, for instance, the rules of camouflage appear like the "Keep off the grass" signs in the park. They ignore the fact that in the first the lives of men are at stake, while in the second merely those of a few blades of grass. To them absence without leave is like playing "hookey" from school; desertion, like quitting a job. They do not perceive that the uninterrupted presence of men is necessary not only to carry out the offensive moves of our command but to counteract the unexpected moves of the enemy.

The civilian beneficiaries of our victory fail to contemplate how terrible to them would have been the consequences of defeat. They are prone to take up all attacks on "military justice." They do not understand the consequences of a lax administration of military law.

Not many weeks ago a one-armed boy called upon me to tell me that a disregard of my instructions to hide from enemy airplanes had cost him his arm and had cost the lives of several of his comrades. He told how the headquarters company, of which he was a member, had marched

at night to the proximity of the front and sought concealment in a woods. The next morning a German airplane flew overhead. Everybody ran out to gaze at the enemy. Almost immediately the German artillery concentration fell upon the woods.

In my last days at Cantigny I was suffering severely from influenza and was unable to make my daily inspection. Most of the old officers had been evacuated from the same cause. On the day preceding the assault, however, I proceeded with assistance to inspect the observation posts—the eyes of the artillery. There I found a newly arrived lieutenant in charge, the men all exposed to enemy fire and not wearing their gas masks. A poet might say that any consequences of this carelessness to them would be upon their own heads, forgetting that men killed, for whatever fault, are none the less dead—they are losses to our army—ignoring the vital fact that whenever the artillery observers are killed or wounded the artillery is blind. In this case lack of training was responsible, but if it had been weakness or

a desire to be an easy boss, of course, no penalty could be too severe for such offense.

Men cannot be allowed, because of their laziness or carelessness, to jeopardize the lives of their comrades. The sentinel asleep on duty is not an heroic or a sentimental figure, even though it is accepted as a presidential perquisite to pardon him for the applause of the pacifists. The undutiful soldier in a well trained organization is as rare as a criminal in a church congregation. It is as much an insult to the men who wore the uniform to suggest that all enlisted men are potential defendants in courts-martial as to say that all citizens will probably come before our criminal courts.

In all my service, and with several thousand troops, I can remember every criminal case. Two were for serious offenses against women. Two were for theft. One, a false charge of assault with a deadly weapon, which the judge advocate directed to have dismissed. Summary court cases, the police court cases of the army, were not much more numerous, and the only serious penalty ever inflicted in summary court was six months' con-

finement and loss of rank to a sergeant of long service who got himself and two young soldiers drunk in barracks when he should have been on duty. If others' experience was very different from mine, it must be because they served with worse troops and worse officers.

CHAPTER VII

THE PURSUIT FROM THE MARNE

The defeat of the Germans in the second battle of the Marne furnished the occasion for giving the first American army corps command at the front. The French had wished to incorporate all the American divisions into French army corps, while the American high command desired to build up all-American organizations as fast as possible. On the side of the French contention it was urged that French losses in the war had greatly reduced the number of combatant troops, while leaving her general staffs, her army and her corps troops almost intact. France, therefore, had a superfluity of corps commanders and corps staff officers who were first trained in the French school of high command, had benefited by the experience of four years of war, and now held their present positions by demonstrated ability. No American, on the other hand, could meet any of these requirements. Prior to our entry into the war no Ameri-

can officer had ever commanded so large a unit as a complete division.

However, there were a number of men qualified to command divisions, because the duties of division commanders and the maneuvers to be ordered by them are only one step removed from those of regimental and brigade commanders, with which all studious officers of the regular army were conversant. A division, moreover, like a brigade, regiment or battalion, is primarily an obeying organization, carrying out orders laid down with greater or less precision by a higher authority. From commanding a division to commanding a corps, however, there was a gap which any American officer would find great difficulty in crossing.

An army corps is a planning organization. It has to work out the complicated arrangements whereby a number of divisions move, relieve, or reinforce each other, and at the same time receive supplies and munitions; must place troops, supplies and munitions in such places that they can be readily used to meet unforeseen developments of battle; must determine how great a force should be concentrated on each portion of the corps front.

It must also order the very complicated disposal of the great quantities of artillery of different sizes and ranges, and make plans for the concentrations of fire to destroy the enemy's defense or break his attack.

Since early spring a high ranking American general and his staff had been attached to a French army corps for instruction to acquire the necessary technique to perform these duties. These officers had been for some time bending every effort to obtain command at the front.

While the issue of the German offensive remained in doubt it was manifestly impossible to risk a disaster by confiding a large sector of the line to this inexperienced, insufficiently trained and untried corps organization. With the defeat of the Germans, however, a new situation presented itself which rendered the formation of the first American army corps at the front not only possible but advisable.

All military text books require the vigorous pursuit of a retreating enemy. Against inferior troops vigorous pursuit has been crowned with success in this war, but wherever the retreating

troops have been of high order they have not only conducted their retreats safely but, owing to the long range of modern cannon, aided by the deadly effect of concealed machine guns and the defensive strength of barbed wire entanglements, have inflicted disproportionate losses upon their pursuers.

In 1914 the French had been able to retreat from the frontier as ordered and had attacked according to plan. The Germans, in turn, withdrew from the Marne, their rear guards checking the vigorous French pursuit with heavy loss, retired in order, and stopped at the Aisne. Now that another pursuit from the Marne was necessary, the French were neither anxious to conduct it themselves nor to command American troops in a proceeding which promised heavy losses with small prospects of strategic success. On the other hand, the Germans would be unable to take advantage of any blunders which the American army corps staff might make in conducting the pursuit.

On July 30th I received orders to return home to command one of the new regiments being formed to proceed to France in the winter. I took

advantage of the travel order to visit our troops in the pursuit from the Marne, stopping at each headquarters on the way forward. This brought me to our General Headquarters, to the staff of the First army, the staff of the First corps and to several division and brigade staffs. At each stopping place I was impressed by the high character, the distinct force and the great native intelligence of the officers. I also missed the perfection of organization and easy running elasticity that characterized the French staffs which had been trained for years in the higher schools of war and had received their post-graduate course during four years at the front. The American communications were defective and the higher commands were not by any means sufficiently informed of the location of their front lines. Road conditions back of the troops were far from satisfactory. The rules of road discipline had not been sufficiently taught to the trains which blocked each other, not only at junctions but even on straight stretches of wide turnpike. Military police were few and inefficient. This was the inevitable result of the short period of training.

The staff officers, who in normal times would have regulated the moving of the trains, were so taxed by their unaccustomed duties in this movement as not to have any reserve time to manage the indispensable service of the rear.

Eventually I came up to an artillery colonel of long overseas service fuming with rage. He had reported to a brigadier general from a regular division recently arrived in Europe whose brigade he was to support. The artilleryman had been at the front several days supporting the infantry of his own division and should have been notified by a higher authority of the relief of the infantry. The first information, however, was from his own liaison officer, who telephoned that new infantry were coming into the front line. After waiting for some time for the new infantry brigade commander to send for him he had finally located the latter and after several hours' wait was still without word from the infantry commander of his plans or of the service he wished from the artillery.

Let me say for the benefit of the uninitiated that in any division the commander of the artillery

brigade lives beside the division commander, receives his orders for artillery support, and advises him upon the technical possibilities of the artillery arm. In like manner the commander of each regiment of field pieces sits in with the commander of each infantry brigade, while the artillery battalion commander is in close touch with the commanders of infantry regiments. The preliminary military education of the infantry brigadier in this case had not taught him how to avail himself of his artillery support and his sojourn in France had been too short for him to learn it before entering the lines. Perhaps this fault might have been remedied at division headquarters except for the fact that the general commanding the artillery brigade himself had only just landed in France without any preliminary study or observation and had been ordered to the front to replace a general from the engineering corps who now, for the second time, had been relieved from command of an artillery brigade because of his inability to grasp the duties and maneuvers of that arm.

In the summer of 1918 the lower ranks were

very much farther along their road than were the staffs and senior officers.

The public seems to be fairly well educated to the necessity of training soldiers, but it has not yet been impressed with the greater necessity of training officers. It is easier to make a soldier than to make a staff officer and to perfect a company organization than to perfect a general staff or produce a general.

Instances of inefficiency or insufficient training on the part of general officers in the pursuit from the Marne abound. Time and again infantry were ordered to attack without artillery assistance, although the artillery was in position and ready to fire. Formations were frequently used which, while laid down in text books before the war, had been proven obsolete in actual experience. A great deal of greenness among the junior officers also showed itself. Troops came under enemy fire while still in column and bodies of soldiers crossed the skyline and approached the Germans in full view, when with a little maneuvering they might have kept behind a crest or a woods and have avoided detection. Efforts at concealment from

airplane observation also left much to be desired. On the other hand, both officers and men demonstrated upon every occasion their willingness to attack the enemy irrespective of loss. This quality is one which can be attained by the troops of only a few nations and by them only after sufficient training and an infusion of the proper discipline. It is a glory not only to the troops but to the men who led them and to the higher officers who inspired their training that they had acquired in one year a power of self-immolation for which military text books state two years is the irreducible minimum.

The imperfection of training of our troops and the incapacity of some of their commanding officers made our casualties unduly large. However, they did not prevent a continuous and heavy pressure on the German rear. If, as in 1914, the Germans withdrew successfully from position to position and stopped upon the line they had chosen, they were still further tired and so much nearer the breakdown, and their losses, moreover, irreplaceable. The American troops which survived were the better for the ordeal. They learned many

valuable lessons. They had increased confidence in themselves, and those officers who themselves were unable to keep up and absorb the lessons of war were beginning to show their incapacity to the higher command.

The soldiers covered themselves with glory. The sins of the pacifists filled many graves.

CHAPTER VIII

THE AMERICAN OFFENSIVES

The pursuit of the Germans after their repulse at the Marne in July, 1918, ended one of the closing chapters in the world war. Secure from defeat, the allies began a long and systematic preparation to win a victory. This plan they soon abandoned to embark upon the successful and final campaign in the fall of the year.

Congress, meanwhile, legislated to extend the age provisions of the draft act in order to raise another army of a million men. The general staff in Washington instructed General Pershing to send home officers experienced in combat to command new regiments and battalions. As I was among the number ordered back, I visited general headquarters in hopes of having the order rescinded so far as it applied to me. My old friends in the intelligence department, while sympathizing with my view, declared that the war would continue for two or three years. A high ranking

artillery officer jokingly said I would miss the summer campaign, but would return in time to spend another winter in the trenches.

The commander-in-chief pleasantly but firmly refused my request, saying that the important movements were over for the year, and that the essential work ahead was to bring another army of a million Americans to France by March, 1919.

I intrude this personal experience merely to show the opinion of our high command in August, 1918, as to the duration of the war. Since the termination of hostilities I have learned from those in authority that the British held the same views.

It was on the 5th of August that I visited our general staff. Three weeks later in Washington I was told by a member of our diplomatic service that the war would be over in a month or two. The reasons for this diametrically opposite forecast have never been made public. Undoubtedly, the successful Franco-British offensives of August 8th and 21st had something to do with it. I imagine that information obtained by our secret service from the Central Powers also was partly

responsible. I surmise as an obvious fact that our secret service agents were in touch with the German revolutionaries, just as German secret service operatives were in communication with malcontents in allied countries. Our men may have received information concerning the internal condition of Germany which was not known even to the German authorities.

At all events the decision to assume a vigorous offensive at once was reached by the allies. The return of officers to America to train the new army was stopped. The flow of American reinforcements to France continued in a steady stream, although there was not sufficient food in sight to feed them in the event of a repulse of the allied offensive or a successful resumption of the German submarine campaign. There were not even arms enough to equip them.

From the end of March, Marshal Foch had command of all the allied forces. He had been constrained to act strictly on the defensive until July 18th, when the American and French attack near Soissons relieved the German pressure on the west side of the salient and compelled its evacuation.

In the Franco-British attacks of August 8th and 21st American infantry participated vigorously; but their achievements are not the full measure of American contribution to the victory.

We have seen, in a previous chapter, how the American 1st army corps pounded the retreating Germans. If no immediate advantage from this costly maneuver was visible, the harvest of this American sowing was reaped in Picardy by our French and British allies. Ludendorff in his book tells how the divisions in reserve in Picardy were shifted to resist and to stand behind the sector the Americans had punished so hard. Without the heavy American attacks on the German rear guard, from the Marne to the Vesle, with consequent heavy American losses, the Franco-British success of August 8th would not have been possible.

The initiative was again in Foch's hands and it remained with him to the end of the war. He now had a larger, better equipped and a less fatigued army than Ludendorff.

A fundamental principle of war is to mass a greater number of troops against a lesser num-

ber of troops and defeat the smaller number. The principle has one drawback; namely, when the greater number is successfully massed against the smaller number, but fails to defeat that smaller number, the attacker has exhausted and disorganized a greater number of troops than has the defender, and has created a situation where his opponent has larger numbers of fresh, organized troops than himself. He has created the opportunity for successful counter-attack. History shows that when the defending general has taken advantage of this situation, most disastrous results have attended the attacker. The successful defensive-offensive battles of the world have been the most decisive.

In the Spring the Germans threw superior numbers against the British and defeated them. They were stopped by the arrival of French reinforcements, whose great exertions, as well as numbers engaged, however, were much less than those of the attacking Germans, because the French reinforcements simply moved by roads and, to a great extent, in automobile trucks and trains, while the German attackers, after concentrating

with great effort, had advanced, fighting, through ravines and across plowed fields. Ludendorff had struck successfully twice more, and twice unsuccessfully, before Foch unleashed his counter-stroke on July 18th.

By August all the German troops were tired; the British army had enjoyed comparative rest since April, and the American army, crossing the ocean in a steady flow, was fully effective as a reserve. The experienced troops already were being used in offensive action; the partly trained troops were in line in quiet sectors, gaining experience, wearing down their tired adversaries, and at the same time releasing veteran troops for maneuver. The newest arrivals were in training camps, and the day they would be ready to enter the line could be figured mathematically. The English and French continued a vigorous offensive in Picardy and Flanders, while the tired American divisions of the Marne salient were reorganized and prepared for further battle.

Upon this occasion the American authority was extended. General Pershing in person took the field as commander of the American 1st army,

under the command of General Petain as army group commander. The St. Mihiel salient was selected as the ground for the operation.

Some controversy has arisen as to who planned the battle of St. Mihiel. Some say the plans were drawn by the American 1st army staff and accepted without revision by General Petain. Others say they were French plans and accepted in their entirety by the Americans. Between these statements there seems but little purpose in argument. Indeed, the general plan of operation was obvious.

Of course, all the technique that was used in the battle of St. Mihiel had been acquired by us from the French. We had accepted their organization of infantry regiments and had learned our minor tactics under their instructors. Our artillery was entirely armed with French guns, the power and limitations of which only the French could know. All our tanks were made in France, and the aviation was principally French and English. The organization of the artillery fire was, for the most part, under French officers serving in the American army as "chiefs of corps artillery." Furthermore, the American 1st army still lacked

a great deal of the equipment necessary to conduct army operations, and this, with its personnel, was lent by General Petain.

It is not by hiding the military shortcomings of the American government behind the brilliant achievements of American soldiers that we are going to save future Americans from the handicaps under which we fought the war. Nor is it fair to our fallen companions, nor to future generations, that we should claim credit for military excellence that Congress and our executives had put beyond our powers to attain.

The French had begun to organize the St. Mihiel salient for an attack before the American 1st division occupied it in January, 1918. They supplied all the materiel; and they furnished practically all the technical and tactical services. If the American staff officers did write the orders for the attack, they did it after having studied under French commanders for fifteen months, and they could not have done so when they arrived in France.

America's contribution to the battle was 500,000 men. Officers and men had learned in France

what American pacifists had forbidden them to learn at home—how to maneuver in modern battle; and they were willing to suffer untold hardships and advance unflinchingly against the enemy. America's glory is that American troops went forward across muddy fields, at heart-breaking speed, carrying out well-prepared orders, and by the very vigor of their assault paralyzing the German defense.

For the battle of St. Mihiel, which was the first American offensive on a great scale, and yet not one requiring the entire American strength in France, General Pershing had assembled substantially all of his better trained divisions and his three best organized army corps staffs.

Even while preparing for this battle he also was preparing for a larger battle, since known as the Battle of the Argonne.

The battle of the Argonne was projected by Marshal Foch as a gigantic maneuver in which the American 1st army to the east of the forest and the French 4th army to the west were to advance side by side, outflanking this formidable defense.

General Foch had wished to constitute two

Franco-American armies under French army commanders. Doubtless, he felt greater confidence in his better trained, more experienced and fully tried French army commanders than he did in the American high command. He also was influenced by the fact that French armies possessed all the technical equipment and transportation necessary to the conduct of armies, while the American armies did not. He may or may not have been influenced by personal and national considerations. Because of its enormous losses, the French army had decreased in size, throwing out of employment a number of generals and staff officers who were anxious to command American troops. There was national advantage also in having French generals commanding American troops at the end of the war.

General Foch's plan would have been correct if a long war had been in prospect. The end was in sight, however, and it was essential for America's position at the peace table, and for American safety after the peace, that the closing of hostilities should leave an American army in the field

under command of generals experienced and proven in battle.

General Pershing, therefore, was right in leading an all American army into the Argonne and in borrowing such French equipment and such staff and other officers as he needed.

It is not my purpose to cull from official and unofficial accounts the progress of the forty days' battle, but to point out circumstances which are of value to our army and which have not received sufficient recognition.

The American 1st army was not a well oiled machine. It was lacking in many essential respects: it was short of its own artillery, of transport, of signal equipment, of aviation, of horses; and, as indicated before, many of its divisions were not complete. It also was deplorably weak in generals.

For his initial assault between the Argonne and the Meuse General Pershing chose his least experienced divisions. Indeed, most of these units were not divisions at all, because they did not possess their divisional artillery. A division consists of infantry, artillery and auxiliary troops, all

of which should be trained to act together for the common benefit. A division without artillery is as incomplete as an infantry regiment without machine guns.

It will be remembered that the exigencies of the allies following the defeat of March 21st had induced or compelled the Americans to send over infantry without artillery. In consequence, these infantry organizations were forced to fight through the Argonne battle without their divisional artillery, a handicap which cost them severely in loss of life, but which their valor overcame. These lost lives cannot be blamed upon any section of the American army. Our allies are responsible to a certain degree, but, of course, the chief blame rests upon those pacifists who prevented us from being prepared to protect our soldiers in this war.

Looking back with a perspective of more than a year, it is safe to say that General Pershing was absolutely right in engaging his less organized and less trained troops, while holding his better organized and trained troops in reserve, as Napoleon was wont to employ his Imperial Guard.

The hardest part of an offensive, under conditions of modern artillery preparation, is not the first assault, but the more or less confused battle which develops as the troops move forward.

It has been suggested by students of the battle that if the best troops had been used in the initial assault, the war might have been terminated that week of September 26-October 2. Never were troops more surprised than were the Germans on the morning of the Argonne attack. Only five divisions opposed the American advance, which penetrated deeply from the first day and almost broke through the line before German reserves were brought up on the third day. It has been argued that if the seasoned divisions, assisted by their divisional artillery, had made the first attack they certainly would have broken clear through the German line and compelled a retirement which would have given us Sedan before the week end. If we could be sure that this is what would have happened, we can agree that it would have been better to engage the seasoned divisions; but nothing is certain in war, and least of all the moves of your opponent.

As the battle was fought German reserves and American reinforcements simultaneously arrived upon the scene, and there, in a series of bitter engagements called the second phase of the battle, the Americans constantly gained ground until brought to a stand on October 14th. If the trained divisions had been used, and if they had broken the German line the first or second day, a general German collapse might have resulted; yet, other things might have happened. Driven by the imminence of their destruction, the Germans might have massed a larger number of reserves, and our trained assault divisions might have faced battle, tired and farther from their bases than they were when they entered the second phase as fresh troops. If the American veterans had become exhausted, they would have had to be relieved by less experienced and less trained troops, and the very reverse of a complete victory might have taken place.

Tested by the possibility of unexpected success, General Pershing's judgment remains sound. Tested by the possibility of mischance, it was equally correct. What if the American and the

French intelligence had been mistaken as to the number of German troops in readiness for the defense? What if the assault had met such a devastating fire as shriveled up the army of General Nivelle in 1917 and destroyed the best assault divisions of France? General Pershing's conduct is justified by every analysis. His army marched through to victory. Let it not be forgotten that General Ludendorff's brilliant breaches of our lines in March and May, in which he used his assault troops to break the line, led him to disaster.

Of the great difficulties under which insufficiently trained and organized divisions labored there is, unfortunately, no comprehensive and authentic record. In all of them knowledge of modern battle conditions was wanting. They had received their trench mortars and their infantry cannons only a short time before and did not know how to use them. Some regiments marched through the whole campaign without taking these indispensable weapons from their trains. They were, in consequence, badly in need of materiel with which to attack German machine gun nests at close range. Not understanding their own arms,

and still less understanding the artillery arm, they called for 75s to accompany the infantry. Unfortunately, they did not furnish the drivers with sabers or sharpen the teeth of the horses—the only way in which they could have expected to hurt the enemy with 75s on the infantry firing line.

The modern field piece is a long range weapon. It ranges up to 11,000 meters and is most effective between 7,000 and 2,500 meters. At a less range than that, because of its flat trajectory, its difficulty of concealment and of transportation, it is no match for the machine gun, the infantry cannon or the long range trench mortar. Even so, a school of officers has been formed which desires to return our artillery to the rôle it played in the days of the Civil War, when artillery losses were large and artillery results small. They have cited in support of their contentions the use of the field piece by the Germans in infantry waves. The point is not at all well taken. The Germans lacked tanks and had to seek fire power in the front line by other means. For this they used an ample number of trench mortars very superior to those

of the allies. They made special mounts on low wheels for a small number of 77 m.m. guns to serve certain special purposes. Finally, they did engage some 77s at close range with very bad results. This maneuver was not a development of the war but a remaining erroneous fragment of their former artillery instruction.

A very good impression of what an undertrained division suffered can be had by studying the testimony before the Senate committee supporting and contradicting the charges of Governor Allen of Kansas, and from the history of the 35th Division.

From the latter I extract a communication from the chief of staff of the 1st army to the commander of the division:

HEADQUARTERS, FIRST ARMY
AMERICAN EXPEDITIONARY FORCES,
FRANCE

Office of the Chief of Staff

October 26, 1918.

From: Chief of Staff, 1st Army.

To: Commanding General, 35th Division.

Subject: Conclusion of an inspection of the con-

duct of the 35th Division during attack in recent operations.

1. The Army Commander directs me to transmit to you the following conclusions of an inspection of the conduct of the 35th Division during its attack in our recent operations. He desires that these conclusions be given the greatest weight in the organization and training of your Division.

2. These conclusions have been deduced from the testimony of several eye-witnesses and are transmitted to you with the desire not only to point out the causes for undesirable conditions but also to give you a basis for the future training of the 35th Division.

Conclusions:

1st. That the 35th Division at the commencement of operations, September 26th, was not a well disciplined combat unit, and the many officers with the Division were not well-trained leaders.

2nd. That the Division Staff was not efficient or well organized.

3rd. That the changes in the Staff and Brigade and Regimental Commanders greatly handi-

capped the Division Commander in the proper functioning of his Division.

4th. That after the attack started there was no system of liaison. Even the runner failed to follow the axis of liaison prescribed.

5th. That brigade and regimental commanders failed to make use of the means of liaison at their disposal and failed to keep in touch with their higher commanders.

6th. That the failure of all commanders to keep a headquarters established where communications could be received was inexcusable.

7th. That the action of brigade and regimental commanders in going far to the front and out of all communication resulted in their having no more effect on the action than so many company or platoon commanders, and prevented the headquarters in rear from sending orders to units in front.

8th. That if commanders had remained in their headquarters or made provisions for messages reaching them immediately, they would have been able to have had a fair knowledge of conditions,

and perhaps have straightened out the many difficulties that arose.

9th. That the intermingling, confusion and straggling which commenced shortly after H hour showed poor discipline, lack of leadership, and probably poor preparation.

10th. That it was a serious error for both the Division Commander and the Chief of Staff to leave their Headquarters at the same time.

11th. That the five attacks which the Division made followed each other so closely that there was no opportunity after the evening of September 26th to reorganize and get the various units in hand.

12th. That after September 27th the Division was really one in name only, as maneuvering power with intact units, except the Engineers, ceased to exist.

13th. That the casualties among the officers were undoubtedly responsible for a great deal of the disorganization.

14th. That most of the straggling and confusion was caused by men getting lost and not having leaders, and not from any deliberate design

to go to the rear in order to avoid further fighting.

15th. That the fighting spirit and bravery of officers and men were excellent.

16th. That the failure to have telephone and wireless communication forward to include Regiments, and the failure to use the proper code call to Corps Headquarters, was due to the inefficiency of Lt. Colonel George A. Wieczorek, Signal Corps, then Division Signal Officer.

17th. That the Artillery Commander, Brig. Gen. L. G. Berry, failed to coöperate with and make full use of the Air Service until ordered to do so.

H. A. DRUM,
Chief of Staff.

The criticism seems sweeping, the more so that the division commander and brigade commanders and a part of the colonels were officers of our regular army who would be supposed by the general public to know the principles so confidently set down by General Drum. The fact is that few, if any, of our regular officers knew any of these principles before they went to France, and, of course, no other officers did.

It must not be thought that disorganization in the army was confined to National Guard troops. An excellent article in the Field Artillery Journal shows the complete disorganization of the 3rd artillery brigade in the battle of July 15th. This brigade was gallant, as were all American troops, but its commanding officer and its colonels had rendered themselves powerless to exert the slightest influence upon the course of the combat.

Indeed, officers of the 1st division will remember in their early training maneuvers a simulated attack against an imaginary enemy which broke down solely through the inability of officers of all ranks to carry out the parts assigned to them by their instructors. It is training and experience, not inspiration and valor alone, which make possible success in modern warfare.

To the difficulties arising from lack of training were added in many instances unskillful generalship.

It has long been the law in America that general officers shall be appointed by the President, subject to the confirmation of the Senate. In the emergency of a war for which he had refused to

prepare, the executive was unwilling to assume this responsibility and called upon a number of high ranking officers in the war college to recommend a method for selecting general officers. This board recommended that all officers not notoriously incompetent should be promoted in the order of seniority in the regular service and that all officers upon reaching the retiring age of 64 should be retired from any service.

The ruling was made upon the assumption that a soldier was senile at 64 but at the height of his power at 63 years, 11 months and 30 days. The rule also held that a regular army officer of every branch was equally competent to command in any other branch. An engineer might command artillery, a cavalryman tanks, or an artilleryman aviation, although, as turned out to be the case, he might never have given five minutes' thought to these services before his assignment. It was also the doctrine that a general officer needed no training and that failure to command successfully, which led to his removal from one command, did not incapacitate him for reassignment to a newer

and less experienced organization, which, therefore, needed a still abler commander.

The creation of generals by seniority was popular in the regular army because while under it many inexcusable promotions were made, and many ridiculous assignments, still every officer in the service received more than enough promotion to satisfy his natural ambition and every one was saved the humiliation and even the danger of humiliation of being overslaughed; that is to say, of having an officer junior to him in the service promoted over his head.

The rule adopted was carried through systematically and no consideration of the good of the service or the lives of soldiers was allowed to interfere with the course of promotion. Officers approaching the retiring age were assigned to duty or given high commands or sent on to visit the battle front as though to prepare them for active service and then retired as the clock struck their sixty-fourth birthday. Not only was the time spent on their training wasted, but the experience of their successors was delayed by so much, and divisions whose commanders had just been retired

were sent overseas under generals they did not know and who did not know them.

I believe that General Pershing was bitterly opposed to this rule. In the higher commands which came under his personal supervision he made assignments without reference to seniority, but in a great army where generals are numbered by the hundreds the assignments and removals, or most of them, had to be done by rule, and the rule was that every general, from whatever branch of the service, should be considered competent to command every other branch until he had proven his incapacity beyond the reasonable doubt of staff officers remote from the actual scene of hostilities.

Late in the war, when the qualifications of various officers had been made plain, the removals of generals became so common as to provoke much comment and some resentment. Even if injustice may have been shown toward a few individuals, it was as nothing compared to the frightful injustice to the millions of soldiers whose lives had been jeopardized, and many of them forfeited, while a few generals were being given a "full and fair" try-out.

The regular army is not and is not intended to be a self-governing organization. The very principle of all military organization is subordination to a higher authority. Wherever soldiers of any rank are allowed to select their leaders intolerable harm is done. We learned from the Civil War and other wars not to allow enlisted soldiers to select their company officers. Our government, unfortunately, did not understand that it should not allow commissioned officers to select their generals. To be sure, a strong policy aimed toward the appointment of the most competent soldiers to high command would have bred a great deal of ill-feeling among the officers not so chosen, but any method of selection would have been better than that of pure seniority. On the basis of military education, the chief engineer of any railroad would be as competent to command a division as an army engineer whose life had been spent building breakwaters and dredging rivers, while the head of any manufacturing concern would have more natural qualifications to command the aircraft organization than any officer in the United States army.

The chief blame for this great evil must lie

where the Constitution puts it, on the commander-in-chief of the United States army and upon his secretary of war, rather than upon the unfortunate committee of soldiers upon whom was loaded the responsibility and who proved unable to resist the impulses of ambition and the importunities of life-long friends.

In the divisions that first came to France considerable progress in weeding out incompetents was made, more noticeably in the lower ranks than among the general officers; but in the newly arrived divisions little of either was possible. Consequently there resulted a great deal of mishandling of troops at a time when skillful leadership was more than ever essential.

As early as the second day of the Argonne the removal of general officers began, and it continued in increasing numbers until the end.

The failure to provide the army with the best available generals caused two hardships to the men: First, the hardship of serving under incompetents; second, after the removal of these, the hardship of serving under new officers, frequently assigned from strange organizations.

Among hundreds of stories concerning the ignorance of general officers throughout the war, I give three, because I have proven their authenticity:

A battery of artillery was skillfully camouflaged at the edge of a muddy, much traveled road. Passing vehicles threw mud over the camouflage and onto the guns, thus improving the camouflage. A general officer, after complaining several times of the dirty guns, ordered the road back of the battery position to be swept clean and kept so. For the information of civilians, I will explain that a German air photograph showing a traveled road swept clean for a length of one hundred yards would cause such attention to be directed to that spot as would certainly discover the battery. This general was not an incompetent; he was merely new to warfare. Afterwards he attained high rank in the army.

An infantry major, in advancing, left two of his companies under cover, and went forward with two. Experiencing stubborn resistance, he sent a runner to bring up the two companies in support. The runner met a general but recently arrived

from America and assigned to command a brigade.

"Here, where are you going?" shouted the general.

"I am carrying an order to bring up the supporting companies of the battalion, sir," replied the runner.

"Well, I will have you understand that nobody in my brigade goes to the rear," answered the general. "You return to your company."

When the runner reached his battalion command post he reported to the major, who again sent him back for the two companies, with orders to hide behind a bush if he saw any general officers coming along!

During the advance in the latter days of the Argonne, an infantry battalion was ordered to clear out a ravine, a mile and a quarter long, occupied by the Germans. Shortly before H hour the division commander met a battery of artillery changing position. He halted it and directed the captain to unlimber and execute "a heavy barrage" on the ravine for twenty minutes.

He then sent a message to the battalion commander to delay his attack, as he had ordered a

heavy artillery barrage on the ravine to precede the assault. The major, who had already begun his attack, anticipating a devastating flood of shell, pulled his men back to await the artillery fire.

The artilleryman, being in a position where he could obtain no observation of the ravine, and having no time to orient his position to obtain accurate fire, merely assured himself that his range was sufficient to clear the American troops and fired for twenty minutes. The infantry major did not even perceive the artillery fire, so wild and thin it was; he lost three hours and a half waiting for assistance which had never been possible.

To deliver supporting fire to an attack a battery of 75s should not be given a front of more than 200 yards to sweep; and unless it has observation to regulate, it must have accurate maps and orienting data.

This division commander, whose function it was, among other things, to command three regiments of artillery, did not know even the simplest principles of artillery fire. But I do not blame

the general; he was an energetic and gallant officer. I do feel, though, that the army is to blame for raising to the rank of major generals officers who had not been instructed in the arms which they were to employ.

The first phase of the Argonne consisted of the initial assault of the greener divisions of the army. This assault lost momentum as the divisions became exhausted or disorganized. New divisions took their places as fast as they could be moved over congested roads, and, German reinforcements arriving, there ensued a period of disjointed attacks known as the second phase.

In this respect the battles of the Argonne resemble those of Verdun and the Somme with the exception that now the allies were so greatly preponderant in numbers of men and munitions that a battle of attrition was as certain to end in victory as in former cases it was bound to be indecisive. For this reason the policy of continuing the assault night and day with all the means at hand deserved the highest military commendation.

The minor tactics employed, however, cannot receive the same degree of praise. The second

phase of the Argonne was strategically successful in that it wore down the weakening enemy. Tactically, it was a series of failures. Soldiers are taught that a tactical victory consists of possession of the battlefield at the end of the action. In the days of spears and shock tactics this was clearly the case. Leaders sought security in the superiority of the location of the ground upon which they placed their troops and upon the rigidity of their formation. Pushed off this ground, the troops inevitably lost the regularity of their order and were doubly defeated.

When firearms again brought extreme mobility into warfare the advantage of holding a certain piece of ground decreased to the vanishing point. The English troops on King's Mountain were at a disadvantage and their successive successful charges against the Tennessee militia were totally unavailing because these never stood before the enemy, but kept shooting at him from all sides.

The introduction of artillery into mobile warfare gave to possession of the battlefield its old importance. No matter how mobile the artillery, once engaged it could not be withdrawn from be-

fore a vigorous attack. Placed practically in line with its infantry, sometimes in front of it, it was doomed to capture, if the infantry were driven back. Conquest of the battlefield, therefore, meant conquest of the enemy's artillery, and as an army, no matter how mobile, without artillery cannot oppose an army with artillery, it meant victory.

The long range of modern artillery lent a new aspect to warfare—what is termed the "depth" of the battlefield.

Where Napoleon's cavalry could re-form in perfect security a few hundred yards distant from the British squares at Waterloo, the modern soldier is in range of the enemy at many miles. In modern defensive warfare artillery may be placed several thousand meters behind the infantry line and fire upon the enemy at varying distances in front of the line, according to the range of the guns. In a previous chapter it has been related how General Gouraud planned his defensive battle of Champagne in depth and withdrew his infantry from position to position while firing upon the advancing Germans with cannon, machine guns and rifles. So far had he extended this principle that

some of his artillery could not reach the Germans until they had advanced a considerable distance inside the original French first line.

Under these conditions a tactical success can only be gained by an advance which overruns and captures the defensive artillery. Any advance less than this is merely a march forward under enemy fire which becomes more effective at every step, while the protecting barrage of the offensive artillery gives less support. When the assault is stopped, if it is stopped short of the defensive artillery, the defensive artillery is moved back. Under these circumstances the attacker must suffer much more heavily than the defender.

Many mistakes were made in the Argonne in ordering attacks which did not even contemplate overrunning the enemy's artillery, and these in spite of the fact that the tactical principle above enunciated had been acted upon by American troops when on the defensive and should have been thoroughly understood by all general and staff officers.

The appreciation of this principle is the line of demarcation between the second and third periods

of the battle. For the decisive attack all available artillery was mobilized on the front of the 5th corps. Both the corps commander and the chief of the corps artillery were skillful officers whose experience dated back to the early days of the 1st division. All the artillery was organized to fire according to one comprehensive plan. The rolling barrage was planned to sweep 11,000 meters. The infantry was ordered to capture all the enemy defenses, however deep. The assault was a complete success. Everywhere the German infantry was thrown back and finally the 2nd division broke clear through and opened the road to Sedan.

The Argonne will be known as Pershing's battle and so brings up the personality of the commander-in-chief.

One of the questions I am asked most frequently is: What about Pershing? What do you think of Pershing? What was Pershing, anyhow? I can add no details to the story of General Pershing's early career. He is a graduate of West Point. At the battle of Santiago, Cuba, he commanded a troop of cavalry. In the Philippines he

attracted attention by his aggressiveness in a campaign against one of the savage tribes. President Roosevelt, in his process of vitalizing the Regular army and changing it from a constabulary into a military force, promoted him from the rank of captain to that of brigadier general. In 1916 he commanded the unsuccessful expedition to capture Francisco Villa. His conduct of this expedition received general commendation, it being thoroughly understood that the limitations put upon him by the War Department made his success impossible. When he was ordered to Europe in 1917 as commander-in-chief he was generally recognized as the proper man for the place, if General Wood was to be passed over.

I met him for the first time in Paris, and my acquaintanceship with him was only that of a major on staff duty with his commanding general. From the day I reported to duty I have seen him five times. In August, 1917, he sent for me to receive my report of Erzberger's secret peace offer to the allies, of which I have spoken before. The second time was when I asked permission to leave staff duty for the line. And I saw him twice

during his inspections of the front, the last time during a heavy German artillery fire. I mention this because of the pusillanimous suggestion that General Pershing absented himself from the firing line. I saw him last when I asked to remain in France.*

The demands upon General Pershing were varied and difficult. For the first few months after his arrival in Europe he was compelled to appear at many places as tangible evidence of the coming of the American army. He had to receive receptions, eulogies and flatteries such as never before were showered upon an American officer. His friends wondered whether he could keep his head after such ovations. He could and he did. He was responsible for the organization that was to receive, transport, feed, equip and munition the huge army coming from America with nothing but the clothes on its back. This task was successfully accomplished. In March, 1918, he had to make one of the gravest military decisions that ever confronted a general. The allies were being

*I have met General Pershing twice since this chapter was written.

badly beaten. Within the next two months they might be defeated and destroyed. Americans reaching France could not be made effective fighting forces in twice that time.

Should he bring them over and risk their capture or destruction by a victorious enemy before they were capable of fighting, or should he leave them safely in America, where they could protect our shores against a triumphant foe?

People who see only that the Germans were finally overcome can never realize how close the Kaiser came to victory, and they never will appreciate how momentous was the problem faced by General Pershing. Another might have taken the safer but the weaker course.

In September he was compelled to decide the question of putting our newly arrived troops into the offensive while unequipped and untrained. Under other circumstances it would have been criminal to put many of these formations into a major battle. Only in the last extremity of defeat or to secure a victory almost within grasp should the newly arrived divisions have been allowed to fight a trained and still organized enemy. The

second condition existed, and General Pershing showed irreproachable military judgment in throwing every resource of his command, every soldier, trained and untrained, into the fire.

The Battle of the Argonne in a measure resembles the Battle of the Wilderness. With the superiority of force at our disposal only an iron will to hammer away irrespective of loss was necessary. But this quality was indispensable. Our losses inevitably would be enormous and our efforts not spectacular. Criticisms of the Argonne we have had, and more will be forthcoming, and very just ones; but there can be no fair criticism of General Pershing for throwing every available man into the attack that ended the war.

We got only the armistice as a result, and a peace. If the Germans could definitely have stopped the allied advance before winter, how much worse might be the plight of the world today!

What heights General Pershing might have attained as a strategist or a tactician had he been in the war long enough to learn all that the Russian,

French and German generals knew, it is futile to ask. No man can do more than meet an emergency. Pershing did this. For the numerous vexations, inconveniences, and even unnecessary hardships which our troops underwent let us place the blame where it belongs—on America's refusal to prepare for war—and not hold responsible men who did their best in a hurry and with the few miserable tools they were given.

It may be remarked in closing that General Pershing is not an officer who rose according to regular army methods. While still a captain he was picked out for high command. If all the other American generals had been selected in the same way our success would have been greater.

CHAPTER IX

SOME ELEMENTS OF NATIONAL DEFENSE

THE armistice found the army still vigorous and its efficiency much increased by its experience in the great battle. Men of real military power had come to the front—and, not the least important, were fully aware that they had not learned all there was in the military art. Schools were immediately formed to study the lessons of the campaign and maneuvers were held to instruct all arms and all ranks in the evolutions which had proven the most successful and the most economical of human life. The American army had approached—perhaps it had reached—the stage where it could function without the assistance of French officers.

Let it be our effort to continue the development of our military from the point it attained in the war and not let it drop back to a position where it will need foreign arms and a year's instruction

by foreign officers, under the protection of a foreign navy, to get ready for the field.

We have demobilized. This was necessary. We have, however, given up every form of organization which we so painfully built up during the war and which we will need to protect us in any struggle which the rivalries of the world may force upon us. Surely, an intelligent people will not allow this condition of helplessness to continue.

Enough time has passed to cool any ill-will which has sprung up from personal injustices, themselves caused by the rotten military system preceding our entry into the war. Let us consider dispassionately how we can form a skeleton organization best adapted for rapid mobilization.

In retrospect it is not difficult to measure the services of all factors that contributed to our success. The Regular army, of course, played by far the greater part. It was the reservoir from which the fundamentals of our military instruction were drawn. It had already largely instructed the National Guard in 1916. It continued this instruction the following year, furnishing the bulk of the high ranking officers for that organization.

It also examined the fitness of the National Guard officers and got rid of the not inconsiderable number of incompetents it contained. It furnished instructors for the Officers' Training Camps and it furnished all the regimental commanders for the National army.

The Regular army also furnished the principal officers of all the general staffs. In sincerity, in patriotism, and in bravery on the battlefield its members lived up to the high expectations of its admirers. However, it had certain defects which it was unable to remedy of itself and there was in this war no higher authority capable of rendering it this service. It could not control its group feeling. The system of promotion put into effect by it regarded too highly the career of the professional soldier and too little the success of the war. The selection of generals merely in order of seniority was a grave offense against the army. The rapid promotion given to the younger officers was not in itself detrimental to efficiency. These officers shone in their new positions with great brilliancy.

In dealing with the question of supplies at home,

its failure was almost complete. The fault here, however, does not rest upon the army officers as much as upon the civilians in the War Department, not only those who officiated during the war but those who had failed to make a plan of co-operation between the military and industry long before.

The administration in Europe was, on the whole, exceedingly good, such failures as were evinced being due to the herculean tasks imposed and the necessity of improvising organizations which had never existed even on paper.

Little praise, however, can be given to the Regular service for its conduct of aeronautics either in Europe or at home. It failed grossly to deliver the necessary planes. It shone in no respect, and it is to be noted that the famous fliers whose gallantry relieved the monotony of unsuccess did not come from the Regular service. It is proper to add that one exception to this unfortunate recital is Brigadier General William Mitchell, who, frequently suppressed in Europe, is now the chief of aeronautics, and who, it may be hoped, will rescue

that branch of the service from its unenviable position.

In military education the Regular army ranks high. Considering the paucity of opportunity for study and the mistreatment it received at the hands of two succeeding administrations, the miserable conditions under which it was kept along the Mexican frontier, its achievements in this line are astounding. The average in intelligence and character of its members is elevated, and men of capacity for great command were shown to be present, although their arrival in position was delayed by the cabal of the senior officers to retain active rank.

The training camps furnished a great majority of the officers in the war. The course of instruction was made short by necessity, but it was efficient, and the principle of requiring every man to pass this test before receiving a commission is surely one we must never abandon. It must not be thought that all the officers who came from these camps entered them from civil life. A very large percentage entered from the ranks of the army. This is, of course, the right principle, and

would have been adopted from the beginning, if it had been possible. It only becomes possible in practice if every citizen has served in the ranks. We would have been lost if we had tried to officer our great armies in 1917 from the ranks of the Regular army and the National Guard.

I firmly believe that the National Guard should be continued. It is highly desirable that there should be other military organizations or another military organization from that adimnistered by the War Department. Everybody knows the blanket effect which the War Department always has put on all initiative. Let us by all means have military organizations where men of military talent can develop along free lines. The Regular army should compel the National Guard to maintain a certain standard, but should not prevent its rising above that standard.

The National Guard comes out of the late war with a marvelous record and a clean slate. Denounced for decades, not only by Regular army officers but by slackers as well, as an organization of tin soldiers, it furnished the cadres which made the success of 1918 possible. The troops which

the Regular army, distracted by its manifold duties, could not furnish, the National Guard supplied. Their achievements, early recognized by both our allies, are now acclaimed by the commander-in-chief himself. The National Guard, however, was only a cadre which was not complete at the top nor at the bottom. It had to borrow most of its general officers, and this always will be so. The spare time which a civilian may give to military training can hardly fit him to hold general rank. Even a brilliant civilian is less fitted at the outset than a Regular chosen in order of seniority.

The National Guard did not furnish its entire quota of officers, needing replacements from the training camps, to which it furnished many pupils, and it also drew heavily upon the draft for its effectiveness. At the end of the war it stood with a long list of divisions and regiments only less effective than the 1st and 2nd divisions. It is now an organization in being, or, rather, a series of organizations in being. These organizations have developed among themselves, by experience under fire and by elimination, men competent to hold

very high command. It is entirely proper that they should receive commissions in these commands from their state governments and that these commisions should be honored by the Federal government. We know from the experience of this war that if any National Guard officers prove incompetent to perform their duties, they will easily be removed.

Reserve officers should not be left in their present unorganized condition. Calling them out from time to time for a short period of instruction will not bring the best results. They should be encadred into regiments and organized in the several departments ready to receive their allotment of recruits or selected men in emergency. Nor should any limitation be placed upon the rank to which they may rise by suitable demonstration of efficiency. The Reserve corps will never be of any value to the Union if it is to be branded as an inferior organization. The young Regular officer who alluded to the U. S. R. on a Reserve officer's collar as his "badge of shame" showed bad taste, but he phrased in Napoleonic language the regulation which rendered our Reserve corps unpopular.

Any idea that high command shall be confined to officers of the Regular army is not only repugnant to American principles but also, as history shows, productive of inefficient generalship, and lastly will vitiate all attempts to obtain necessary military legislation.

Superior advantages which come to the Regular army officers to fit themselves for high command will result in bringing Regular army officers into most of the important positions. From the point of view of their own ambition they do not need any such written or unwritten law. As a successful general from the Regular army put it: "If after twenty years of study I am not a better soldier than one of these new men, heaven knows, I want to get out of his way."

The great success of the war was the draft. In the permanent establishment of this service lies our national security and the remedy of such military ills as developed in our war. If every officer has to rise from the ranks, there can be no feeling of officer favoritism. If every citizen serves a period in the army, there will not be that lack of understanding between manufacturer and

supply officer which acted so detrimentally. If every member of Congress has served in the army, there will be an end to the lamentable misconception about the army and military affairs which now characterizes our legislators. If every citizen is always liable to the call to war, young pacifists and old pacifists with sons will not embark so lightly on the fallacies that cost us so heavily in wounded and dead.

To be sure, universal service will not eradicate all faults or all mistakes, but it will end the great faults under which we have served.

To provide our personnel, therefore, we should have universal training to start every citizen on the road to military efficiency and to give each one an equal opportunity to become a commissioned officer. The Regular officers' corps chosen from those who apply for commissions will be the heart of our military system. The officers' reserve corps and the National Guard shall be auxiliaries.

Let us undo at once our error of demobilization. Officers of the Regular army holding temporary commissions have had to vacate these temporary commissions *entirely*. Why *entirely?* Obviously,

a regular army of a few hundred thousand men cannot support an officers' corps necessary for as many millions. But why should not an officer serving in the capacity in the Regular army which the occasion demands still have a reserve rank or a war rank to which he will rise immediately on the outbreak of hostilities and without further action on the part of the authorities. Surely an officer who knows he will occupy a position of increased authority in the event of war will work to prepare for that position, will be familiar with it, and, unlike so many of the generals at the beginning of the late war, will not think as a major or a captain.

This plan would also facilitate the recruiting of an officers' reserve corps. Now an officer who accepts a reserve commission feels that he is accepting a rank beyond which he cannot be promoted and that if he is mobilized he will be constantly overslaughed by an unlimited number of Regular army officers who will be promoted not by selection because of efficiency but by seniority because of class feeling. The reserve officer

should know just where he will be at the outbreak of war and that, once the whole army is mobilized, all officers will be on the same list—will rise, stand still, or fall on their merits.

CHAPTER X

NEW WEAPONS AND THEIR USE

JUST as we should learn from our war experience how to provide an army to defend us in the next great crisis, so must we find a true military doctrine for the use of the army.

It is vital to resist the temptation to find in the experiences of the war corroboration of preconceived ideas. This will be especially hard among the officers of the Regular army because they have studied from pre-war text books and because a minority of them have had actual experience in combat. Just now too much stress is being laid upon the value of "training for open warfare," and the emphasis on the importance of mobility as contrasted with FORCE. It would be absurd to suggest that open warfare training should be abandoned or to minimize in the least degree the value of mobility. Furthermore, there is no danger of such a mistake being made in America. There is, however, a danger that men who have

not participated in heavy combat will fail to appreciate that when troops, substantially equal in numbers, equipment and discipline, meet, there must result a grueling combat in which every resource of materiel and technique must be employed.

I am frankly afraid that those officers who have not learned the intricate technique developed on the west front will prevent its being taught in American schools. Let us not forget that the armies which clashed in 1914 were all led by generals educated up to the eyes in the school of mobility. And let us not forget that a month of inconclusive "open warfare" ended with the opposing armies completely demobilized in the face of each other. For years thereafter neither side was able to use enough FORCE to break the other's lines. When finally the Germans found the means to break our lines, these were in every case restored and at less expenditure of energy than had been used in breaking them.

The campaign of the fall of 1918 is no criterion for a campaign between equals. The Germans were inferior in men and in munitions. They were

deserted by their allies. The country behind them was breaking into revolution.

In our teachings of mobility let us appreciate that we move only to concentrate FORCE. Let us be prepared to exercise this FORCE to the fullest efficiency, and let us appreciate that "open warfare" can only be used in advance guard actions and in the pursuit.

When main bodies come into contact, methods wrongly called those of "trench warfare" must be used, as was shown in the transition from the second to the third period of the battle of the Argonne.

To attack successfully an enemy who is organized to defend himself it is necessary to concentrate a superiority of artillery which by carefully regulated fire and well defined objects will neutralize his barrage batteries and will put out of service the greater part of his organized strong points. The infantry concentrated in superior numbers for the assault can, by use of its proper weapons, overcome the defense of hostile infantry and artillery which has been shattered by our artillery preparation, or it can attack with reason-

able success enemy rear guards; but for infantry to attack an organized enemy, equipped with machine guns and protected by wire and a barrage and not greatly shaken by our preparatory fire, has been proven suicidal by the experience of all combatants in this war. The fact that tanks are of great assistance in attack and that surprise is still possible and of great value does not detract from these established principles.

It is imperative that artillery be handled as artillery and not as though it were trench mortars or infantry cannon. Bringing artillery into the assaulting line adds nothing to the attack, while it deprives it of the invaluable support of guns properly handled.

Artillery fire, to be effective, must be concentrated. The long range of modern guns permits concentration not only to a point far beyond that which heretofore was possible but to the point of annihilation. To attain this irresistible use of artillery perfect liaison between infantry and artillery is essential. This liaison can be accomplished only in divisions trained and exercised in the combined use of arms.

Due to the lack of divisional artillery and the consequent lack of support to some infantry divisions, and because of the ignorance of many general officers in the use of artillery, there has grown up a school of infantry officers who believe that cannon should be attached to small infantry units to move with them and fire on the restricted front of the unit to which they are attached. This is an error of the first magnitude.

The correct employment of artillery is simple and self-evident, but it seems as much of a mystery to some intelligent men as music or painting is to others.

At the time of Francis I. the Chevalier Bayard is quoted as advocating the concentration of artillery fire; and a chronicle of the time of Joan of Arc remarks the amazement of a lieutenant-general that Joan knew by instinct how to concentrate the fire of artillery as well as he could have done it. Yet war after war has been fought and this simple principle has been utterly ignored by men of lifelong service in the army.

In justice to our army let it be recorded that prior to the war neither the French nor the Ger-

mans had thoroughly mastered the use of the combined arms under modern conditions. The technique of the first was, to be sure, nearly perfect in accuracy of aim and in concentration of fire. They themselves admit, however, there was a lack of coöperation between the artillery and the infantry in the early stages of the war. The Germans understood both the concentration of artillery fire and the use of the combined arms; but they fell into the error of exaggerating the value of moving the guns, and from this mistake they never entirely recovered. Soldiers should know that the moving of cannon is a defensive operation and that the offensive operation of cannon, within their range, lies in moving their fire.

Of course, the four developments of this war which most profoundly have affected its present and future conduct are: Airplanes, mustard gas, tanks and automobile trucks.

Of these, airplanes have practically monopolized public attention. It has even been suggested in the American Congress that the next war will be won in the air. This is a threefold misapprehension due to the natural appeal the airplane makes

to the imagination, to the propaganda carried on by inefficient and dishonest aircraft production authorities, and to its spectacular attacks on civil populations, timid and easily panic stricken.

The airplane undoubtedly is effective in attacking towns behind the lines. The German air raids obtained results greatly incommensurate with any material damage done. Bombing factory towns at night robbed the workers of sleep, shook their nerves, and detracted from their capacity to turn out munitions. The effect of air raids in this direction, however, shrinks to insignificance when compared with General Scott's bombardment of the civil population of Vera Cruz with heavy artillery in 1847. The Germans made a practice of bombing factory cities as far as their means would permit, but it cannot be said that all their efforts had any appreciable effect upon the final outcome of the war.

On the other hand, the allied blockade produced a condition of near famine in Germany in 1918 and was largely instrumental in breaking down Teutonic morale. This reached its lowest ebb in the summer and fall of 1918, when the hard

pressed army in the field had need of every possible support from home, but received discouragement instead. The blockade, therefore, remains supreme as the most effective and the most cruel weapon to use against the enemy's civil population.

From the point of view of military attack airplane bombing is not effective. If the bomber flies by night to avoid detection from the ground, he has great difficulty in seeing the target. If he comes low enough to see and hit the target, he becomes visible and vulnerable. If an airplane attacks back areas in daytime, it must fly so high in rarefied atmosphere to avoid the anti-aircraft guns that it is not able to carry a large quantity of bombs, and it must launch these without possibility of aim. As a weapon of destruction the airplane cannot compete with the artillery in accuracy or in volume of fire.

The principle that "one gun on shore is worth two guns at sea" has remained true at every development of the battleship, and the same probably will be true of the airplane. Ground gives concealment, protection, and the opportunity to use

the biggest gun. The ship and the airplane may choose the time and range of attack, but these will not offset the greater advantage of fighting from the ground.

In attacking troops the airplane, armed with machine guns, has proven more effective. It is exaggeration to say that any value comes from dashing at a battery in position or upon troops in trenches, because these usually find protection. But when the roads are congested by columns of infantry loaded down with equipment, and by artillery and transport tired and not vigilant against air attacks, airplanes with machine guns have inflicted considerable losses; and by scattering organizations and blocking roads have materially delayed movements of troops. For this purpose, therefore, airplanes will be used more extensively in future.

On the other hand, it should not be forgotten that the development of aviation advanced much more rapidly than did the science of anti-aircraft counter-offensive. Undoubtedly instruments will be invented to improve the fire upon airplanes at great heights, and gunners will be better trained

to combat airplanes flying low to attack troops. For the latter we have only to devise a simple weapon and put it in the hands of experienced wing shots. The red tape of the War Department prevented the use of this simple expedient in Europe, although frequently advocated; and yet, in several cases, infantrymen, relying only upon their sense of an object moving in the air, and using either the service rifle or the French automatic rifle, succeeded in bringing down enemy planes.

The great use of aviation, of course, will be to obtain information. Airplanes now can fly many hundreds of miles without alighting. They can, therefore, patrol the enemy's rear for a distance that it will take troops several days to cover, even while marching at the most rapid speed. On clear days they can easily detect all movements in force on the railroads or roads, and on clear and especially on moonlit nights should gather a great deal of information. The value of airplane reconnaissance in this war became the greater because of the almost solid line between Switzerland and the sea, which made the work of ground patrols and

spies much more difficult. Airplanes not only acted as patrols but carried spies by night and left them in enemy country to send back reports by carrier pigeon, by contact with other spies, and by returning in an airplane with which an appointment had been made.

In this way airplanes make the problem of the commander contemplating an attack much more difficult. That they do not make it impossible has been shown by the concentrations of troops and surprise attacks which characterized the year 1918. Four instances will confirm this—in the early spring of that year the British, with a large preponderance in the air, were unable to learn of the German concentration against their 5th army; on the 18th of July, the Germans, with a superiority in the air, were not aware of the concentration of the Franco-American corps in the forest of Villers-Cotterets; in April, 1917, the information which the Germans got of the proposed French attack was obtained by a trench raid; and on July 15th, 1918, the vital information which General Gouraud received of the very hour that the Ger-

man general attack was to start was obtained by an old-fashioned patrol of only four men.

I feel, however, that the intelligence departments of all armies signally failed to take full advantage of the possibilities of gaining information by airplane.

In addition to its long range patrolling, the airplane is valuable in obtaining news of enemy movements near the front during battle and the movements of its own advancing troops. Making photographs which reveal the positions of enemy batteries, strong points and trenches is perhaps the most important service of the airplane, since it is impossible to break an enemy line without accurately bombarding his defensive organization. Having located the enemy's defenses, the airplane also offers great service in regulating the fire of the destroying artillery.

Great as the value of the airplane unquestionably is for locating and directing fire upon enemy organizations, it is not indispensable. Many expedients have been devised for detecting enemy positions from the ground and for directing fire upon them.

The American artillery became especially proficient in this because it had to fight almost without aviation through the greater part of the time it was in the war. On the contrary, the British were superior to their enemy in the air throughout most of the struggle, but did not get the full benefit of this superiority because their artillery never reached the technical development which the Americans learned from the French. It seems well to point out that in the development of our aviation to the utmost we should not neglect fully to develop all the ground methods of countering the enemy's aviation.

Airplanes and balloons again give commanding officers the opportunity to make personal observations and to inspire the men with their presence.

It was Napoleon's constant endeavor to occupy a position on the battlefield where he could view all maneuvers and could direct tactical movements in person. His corps and division commanders personally commanded their compact masses and inspired them by example of individual courage.

The increasing size of armies and of the range and destructiveness of weapons had led to such

great extensions of fronts and such depths and openness of formations, such necessity for concealment from sight even before the great war as to make individual observation by the commander on the one hand and example on the other no longer possible. Coincidentally, the development of the telephone made possible the transmission of orders over long distances.

These causes led to the exercise of command from a command post, selected because of its accessibility to lines of communication from all points, and generally placed immediately in rear of the center of the command. Here the commander receives information from the front and orders from the rear and from it regulates the movements of his troops. If he leaves his position for the front, he can obtain only a small part of the information necessary to form his judgments and can inspire only an infinitesimal percentage of his men, while all efforts made in these directions necessitate his turning over the command of his troops to his subordinate for a considerable period of time, perhaps during the time when his presence is most needed.

By using an airplane a division commander can make frequent and rapid surveys of the condition at his front, size up the situation at the vital spot and intervene with a decisiveness which is not possible when dependent upon varying and conflicting reports from subordinates. At the same time by use of special insignia on the plane the commander can make his presence known and thereby encourage his troops.

It seems strange that this use of the airplane was not adopted in the war. The reason probably lies in the high average age of commanders disposing of airplanes and to the hostility which the great number of mediocre generals would feel towards a dashing individual who would thus distinguish himself. In all services brilliancy was frowned upon by the oligarchies of old fogies which retained their palsied influence throughout the conflict.

Among the Germans, artillery commanders were required to study the enemy's terrain by aerial observation over his lines, but this was forbidden in the American army. Of course, the Germans were right and we were wrong. We also

were wrong in not allowing our artillery commanders a personal use of balloons. The balloon is the proper station for an artillery group commander when his group is in action. He will do better work by the use of his own eyes than he will by using reports of a balloon observer. Furthermore, he can be held entirely responsible for the conduct of his fire and cannot pass the blame of failure to an officer in another branch of the service.

It is hard to fix the blame for the failure to allow our artillery commanders personally to take the air. Undoubtedly the higher officers of the air service intrigued to keep officers of other service from flying in order to magnify the branch of the service over which they presided. The general staff also discouraged the development of initiative on the part of line officers. Perhaps there was also a lack of insistence on the part of the artillery officers to obtain personal use of the balloons and airplanes.

It must become a part of our doctrine that in the air, as it has always been on the ground, the responsible commanders shall make their own re-

connaissances wherever possible and not delegate this dangerous but indispensable work.

While fully comprehending the great value of the air service, we must not forget that in the actual battle poison gas and tanks are much more effective. Aided by yperite gas, surprise was the great factor in the German victories of 1918. Aided by tanks, surprise was the element of allied success in the same year.

The enormous value of surprise, long recognized in the literature of war, had been largely counteracted on the western front by the strong defensive organizations that demanded such a long artillery preparation to destroy them as to inform the enemy of the assailant's purpose. The great offensive power of gas and tanks reintroduced the opportunity for surprise.

The great difference between bullets or explosive shells on the one hand and gas on the other is that the action of the former is instantaneous, while the latter retains its deadly effect for varying periods. If the bullet or shell fragment does not strike its intended target, it is harmless.

The most effective of all gases used in the war was yperite, which poisoned the neighborhood of its release for hours and even days. Yperite, a liquid of severe caustic properties, penetrates the thickest clothing and inflicts terrible burns upon the body. Evaporated, it becomes a deadly gas, invisible and nearly odorless. Upon one occasion a division marched in the rain through dripping woods which previously had been subjected to yperite. Nearly all of the men had to be taken to the rear, writhing in agony. In many instances men have been fatally gassed without even knowing they had been subject to its effects. Because of its deadly efficiency gas has, further, a moral effect. Troops become inured to high explosive shell and rifle fire, but the longer they are acquainted with the effects of gas, the more they dread it.

The Germans, on March 21st, 1918, made the fullest use of gas in their attack on the British. First, batteries were silenced and, once splashed with the liquid yperite, they could not be used again for a long time. Next, the German guns were turned upon strong points and the garrisons

were subjected to the effects of yperite gas. A part of each garrison was put out of action by burns and the remainder greatly weakened from having to wear gas masks for several hours.

Having disposed of counter-batteries and of known strong points, the whole German artillery was able to fire the rolling barrage before its own troops. It would not be wide of the truth to say that the use of the yperite gas had increased three-fold the efficiency of the German artillery.

American troops suffered the same disadvantage from the lack of gas shells that they suffered from the shortage of airplanes. Sentimentalists whose activities undoubtedly were guided by German agents delayed the manufacture of gas for use against the Germans while fellow countrymen were scalded and choked to death by this modern and terribly effective weapon.

The tank, like every other weapon in this war excepting gas, is an American invention, neglected in its home country and developed abroad. The tank, in principle, is the body of an armored car superimposed upon the American farm tractor. It is strange that those countries which en-

deavored to be militarily efficient in times of peace had not already hit upon the tank. They all developed the armored automobile and used it extensively along the roads during the war of movement. When the front became stabilized, the roads immediately in the rear became impassable and the armored automobiles could not be used. It has not yet been determined who first thought of using the American endless belt tractor on the battle field.

Originally, the tank's principal value was believed to lie in the facility with which it cut barbed wire. Prior to the development of the tank the wire was cut by artillery fire, by long tubes filled with high explosives and placed beneath the entanglements, and by infantry under protection of a barrage. All of these methods were effective in trench raids, but not satisfactory in large movements. At Cambrai the British tanks opened avenues through the wire defenses in a manner that revolutionized the principles of attack. Tanks also proved of great value in attacking machine guns, the tank's weapon and crew having an advantage over the infantry machine gun crew in

the open or even in a pill box. The tank's weakness lies in its absolute vulnerability to a direct hit from a cannon. From this it seeks security in surprise, in rapidity of movement, and, most of all, by operating in misty weather. The mist which makes the airplane powerless brings the tank into its kingdom. Therefore, as the reconnaissance airplane is the greatest assistance to the defense and the tank is the greatest weapon in the assault, misty weather will favor the attack more than ever. A general lesson should be drawn from this coincidence—in misty countries the offensive will be more successful than in regions blest with a clear climate.

Tanks constructed for that purpose also have been used to carry field pieces across shell-torn ground and to bring up water and munitions. Large tanks have been used, especially by the British, to carry infantry across open ground and establish them in woods and other defiladed areas.

The tractor, which has been adopted for the American artillery, is a tank in every respect except that the drivers have no protection and no weapon. If our ordnance department ever

stops its policy of opposing improvement, protection will be given to the drivers which will make them immune from shrapnel fire and greatly increase the mobility of our artillery.

The word "tank" was adopted to make the Germans think that these new machines had no other object than the carrying of water to the front. It is unfortunate that the word was appropriated at all. It ought to be expunged from our military vocabulary and the word "tractor" substituted. We will develop the many uses to which the tractor is adaptable in warfare much more freely than if we hypnotize ourselves with the word "tank," which, in the public mind, and to a great extent in the military mind, limits the tractor mechanism to a definite style of machine.

If aviation has received too large a portion of public attention, the automobile truck has been practically neglected, and yet this machine saved the war for the allies.

The French railroads were vastly inferior to the German, and although the French had the advantage of fighting in their own country and using their own railroad lines, while the Germans had to

fight in foreign countries and connect their railroad lines with the captured lines, rebuilding temporarily many dynamited bridges, the latter still gave their armies a service immeasurably superior to the French railroad service. The French were the first to fall back on the use of automobile trucks, turned out by their factories in great quantity and of splendid quality.

One of the considerations governing the German attack on Verdun in 1916 was that the assailants could easily renew their supplies by rail while the French had only one railroad line to the city, and this under long range shell fire. It was a distinct military surprise to the Germans to find the French were able to supply the army defending Verdun by an enormous and efficient system of auto truck transportation.

When the Germans broke the British line in March, 1918, the greater part of the French reserves were moved to the battle front in auto trucks; and when the Germans broke the line on the Chemin des Dames in May, the American 2nd division was moved across France in auto trucks from its position in support of the 1st and arrived

in time to block the road to Paris. One of Ludendorff's laments is that the German factories could not turn out auto trucks in numbers necessary to offset the allies' advantage.

The airplane in reconnaissance, the tank in assault, and the auto truck in mobility have sadly invaded the province of cavalry. One well may wonder what lies before the *beau sabreur*. The answer, perhaps, is found in the words of the chagrined mechanic who, given a team of artillery horses to drive, contemptuously referred to them as "hay burners." The fight is between the horse and the machine and it will be determined by the economic conditions of warfare. Where horse feed is abundant and fuel scarce the cavalry horse, the artillery horse and the army mule will remain. Elsewhere, they will be driven out by the machine.

CHAPTER XI

THE GENERAL STAFF

THE subject of the General Staff is one mention of which is the occasion for great controversy. While its indispensability is acknowledged, its unpopularity is great in every country.

One hundred years ago Clausewitz, when writing on war, could not restrain himself from making contemptuous allusions to staff officers. The French called their general staff officers "*endente*," meaning "dressed in lace." The English viewpoint is shown by the scale of awards the German officers were supposed to employ in rewarding their sharpshooters for killing British officers: "Ten marks for a captain, twenty marks for a major, one hundred marks for a colonel, and thirty days in jail for shooting a British staff officer!" In our own army the general staff was frequently referred to as the "general stuff," and when its officers went to the front they were some-

times told that a star could now be put in the service flag of their particular general staff.

This unpopularity of this minority of the army with the majority, and the great unpopularity of the Washington general staff with the members of Congress, make the development of a proper general staff system a difficult matter. At the same time a general staff is essential to an efficient army.

Every army has long been divided into three fundamental sections called arms, or branches, of the service. They are infantry, artillery, and cavalry. To assist these in their work are supplementary services called engineers and signal troops, supply trains, hospital troops and a military legal department. Each is separate and distinct, and its personnel devotes itself to its particular branch of the service.

Management of the whole rests in the general or generals. In the case of a small army, say one regiment of infantry, one battery of artillery, one troop of cavalry, with a handful of specialists in other departments, one general can do this work with such assistants as he can pick up from the

different branches or from civil life. As armies increase in size the complexity of their administration and command increases, and larger and more thoroughly organized staffs become necessary.

While armies exist for use in the field they must, in their nature, have an administration at a central point; this administration procures their weapons, clothing and supplies.

In early days this was largely done by contractors. The abuses and weaknesses of the contractor system led to the development of bureaus. The collapse everywhere of the bureau system caused the duties of the bureaus to be turned over to the General Staff; that is, everywhere except in America, where the bureau system persisted, in spite of a long series of failures, up to this war, where it once more left its hecatombs.

The principal bureaus of our War Department are the Adjutant-General, whose duty is to issue the order to the Commander; the Ordnance Department, whose function is to procure arms and fighting equipment; and the Quartermaster's Department, whose province is to furnish clothing and supplies. The spheres of the Ordnance and

the Quartermaster's Departments have become overlapped in an exceedingly ludicrous manner.

It is necessary to dwell for a moment on the total failure of our bureaus in this war because of the vigorous efforts now being put forth by them and their political supporters in Washington to preserve them so they may repeat in a future conflict the horrors they achieved in this.

Our Ordnance and our Quartermaster's bureaus really were worse than useless. Better for the army had they never existed. Not only did they do no good, but they stood resolutely in the path of every effort toward accomplishment.

The Ordnance Department had not provided for the war a single weapon of first class. Our 3-inch field piece was badly sighted; our howitzers were of such feeble range that if brought into action against modern artillery they would have appeared like the jingalls of the Chinese against the modern artillery of the Japanese in 1895. The machine gun was invented by an American, but the Ordnance Department refused to provide them either in number or quality. When the American, Colonel Lewis, invented a greatly improved ma-

chine gun and offered it to this country gratis, criminal jealousy on the part of the Ordnance officers induced its refusal, and this refusal was continued long after the outbreak of the present war and even after our entrance into it. Rather than let American troops fight with a Lewis gun, our envious Ordnance Department preferred they go to battle unarmed. The confessed pretext for this criminality was that the Ordnance Department was developing a better gun. At the end of the war an excellent weapon was produced, whether better or worse than the Lewis is a matter of opinion; but this gun was not available while American lives were being sacrificed on the battlefield.

No less criminal was the conduct of this department in regard to artillery. When Joffre came to America in the spring of 1917 he brought the complete plans for the French 75, the great weapon invented by the French in 1896, and which, at the close of the war, was still the premier field piece. Not only was this by far the best field piece in existence, but the French, by long practice, had developed methods of handling it which would

require a long period of experimentation with any new weapon to learn to imitate. These plans were turned over to our Ordnance Department just as we were about to enter the war with practically no artillery, and such as we had of inferior quality and nearly worn out. *The Ordnance Department spent a year trying for its own glory to develop improvements on the "75." Meantime, American divisions remained unequipped.* Instruction was delayed. If, sometimes, our barrages were misplaced, if the artillery did not protect the infantry, if our shells fell in the ranks of our own men, the chief blame lies at the door of these murderous egoists.

If our Ordnance Department was vicious, our Quartermaster's Department was ridiculous. The Quartermaster's Department purchased clothes for the army and also perpetrated the design. The result attained by these sleek clerks has offended the eye of Europe and America and spoiled the temper of every American soldier. Our infantry was dressed in riding breeches, and all soldiers were given a legging cumbersome to put on, fragile in construction, and unsightly in ap-

pearance. Our shoe was well shaped, having been designed by a doctor, but of such flimsy construction that it could not survive a single day's hard marching. To save some few cents per thousand, all pockets were reduced to a minimum size, and this for men who had to carry upon their person not only such comforts as they wished but all their necessities. The Quartermaster's Department, besides, had evolved a system of transacting business that would amaze a Chinese custom house collector. Its end was not to transact business, but, incident to the transaction of business, to perform a series of extraordinary acrobatics on paper.

In consequence, the troops in Europe suffered hardships until a purchasing department was organized which was compelled to procure more than half the supplies needed by the army.

Soldiers, lacking in military qualities, uncomfortable in the field, unsuccessful in the command of men, unrespected by their fighting associates, naturally drift into the swivel chairs of the bureaus, there to find themselves the masters of

the fighting men, with the tragic and comic results already outlined.

Stark necessity had driven the armies of Europe into better organization, but no such necessity had knocked at the doors of our War Department. Our bureaus had become allied with the political machine. Business firms dealt with the army through the Ordnance and Quartermaster's Departments. Also, they lent aid at election times. Officers and men dealt with the Adjutant General, and political favors for people with influence could be negotiated through this office.

Elihu Root, while Secretary of State, and Leonard Wood, while Chief of Staff, fought vigorously to eradicate these evils, but their efforts were only partially successful; and with the end of the latter's detail, politics increased its sway over the military fate of the millions destined to go forth to fight.

The theory upon which these administrative duties should be turned over to the General Staff is that the General Staff is composed of fighting men, not of slackers and clerks. These fighting men, being up to date in military developments,

will demand up-to-date equipment, and, themselves subject to the hardships and dangers of war, will be loath to subordinate military efficiency to political expediency, a condition which has not existed in the staff departments.

The General Staff, then, fundamentally an organization drawn from the fighting services, is charged with the administration and equipment of the army, in peace as well as in war, and with the conduct of all affairs which involve more than one arm of the service. These include (1) obtaining information about the enemy, (2) planning movements of troops of different arms by rail or by road or by water, (3) plans of battle for the combined arms, (4) producing and delivering supplies, and (5) training.

This, of course, makes the General Staff superior to any of the arms of the service, and it has led to constant usurpation of power, a usurpation which has come the more easily because of another consideration.

The promotion of able officers seems to become more difficult as armies become more regularized. More and more high rank goes to men who have

passed the age of greater efficiency and have really entered upon or advanced far down life's decline. This fault has been recognized without being corrected. Rather than assault the obstacle boldly, military practice has been to circumvent it by vesting in young staff officers of lower rank powers which properly belong to the superior generals.

For example, a General Staff officer, acting in the name of his commander, can give orders to officers who far outrank him. The operations officer of a division, who may be a Lieutenant-Colonel or a Major, may himself direct a Brigadier-General what to do; and likewise, any one of the chiefs of the General Staff sections of the great General Staff may issue orders to Army Commanders. A Brigadier General may designate in detail the work to be performed by the troops under the direct command of a Lieutenant-General.

The General Staff becomes a kind of a superior officers' corps, standing in relation to the line officers somewhat as line officers stand to non-commissioned officers.

It has been found necessary to put staff officers

through a course of instruction and to require them to pass an examination. They are then assigned to the General Staff by an order of the War Department, and are sent to duty with their respective commands by order of the War Department or the Commander-in-Chief. Thus, a Division General may not select his staff officers. If a difference arises between him and his staff he has a personal appeal to his Corps Commander, but the staff officer has an independent line of communication to staff officers at Great Headquarters, which dominates the Corps Commander. As the detail of all administration is handled by the General Staff, the subordinate of the General Staff is really closer to the fountain head of authority than his commander. This is a fault and a grave one, and one which must be remedied.

Staff officers do not personally engage in operations, whether maneuvers or combats. Information of the actual working of the plans they formulate comes to them second-hand. Their perception is limited by the ability of combat officers to explain and their own capacity to comprehend. Therefore, anything like permanency in staff as-

signment is certain to breed misconception in high quarters and unskillful, badly drawn orders.

Another fault of the General Staff system is one of morale. Before the days of the General Staff the path to the rear was entirely too well beaten. Many were they who left the combatant branches, recognized as the services of honor, for the administrative branches, which soldiers held in slight esteem. With greater power and greater prestige attached to the place of comfort and immunity from danger on the General Staff, how shall we be able to keep able and forceful men at the front, where, after all, the enemy has to be met and overthrown?

Finally, that conception of the General Staff which was developed in Germany, and which all the Allied Staffs showed tendencies to emulate, must be annihilated; namely, that in time of war the General Staff becomes the government of the country, an irresponsible government, and one possessing powers of tyranny which it has taken generations to drive out of our civil system. If a military clique comes to possess complete power to dictate who shall and who shall not enter the

army, to decide where mobilized men shall serve, to say what industries shall be commandeered for military purposes, and shall be able to regulate the right to travel, to conduct a military secret service, to have the power of imprisonment, and be permitted, as was proposed by President Wilson, to gag the press, how great becomes the jeopardy of our liberties!

The solution of the General Staff problem is virtually the solution of every other military problem—universal service of all young men while they are young. With universal service will come national and individual understanding of military necessities and the limitation of military authority. The nation will not, as its civil authorities found it necessary to do in 1917, turn over the conduct of the war to men as unknown to the nation as the nation is unknown to them, with knowledge of war too little known to both.

CHAPTER XII

THE CRIME OF SILENCE

That censorship is unavoidably vicious is a truth it has taken history to develop, and this was understood before the war only by free peoples. In Russia, as in oriental countries, censorship was employed as one of the most efficient instruments of tyranny. In Germany, also, truth and forward movements were combated by a censorship which, while it could not be made complete, was none the less efficiently exercised. The long struggle for freedom in England and her colonies is too well known to require even a summary here. One hundred and fifty years ago the conviction of our people expressed itself in the constitutional provision for the freedom of the press.

The principle of the freedom of the press was established in England contemporaneously with the supremacy of parliament over the king. It first came into relationship with the military in the Crimean war, when Mr. Russell, correspondent

of the London Times, exposed the frightful disorganization of the British army in that campaign. From that day to the great war it exercised a wide influence upon military affairs. That its influence has not been wholly beneficial is certain, but its faults have been magnified and its benefits largely forgotten.

The savage description of the Union rout at the first battle of "Bull Run" by Mr. Russell of Crimean fame, since dubbed "Bull Run" Russell, was as unpopular among the American people as it was in the army, but it was the greatest single factor in awakening the north to its real military shortcomings. The press also is to be credited in large measure for the removal of McClellan and Burnside and for the popularity of Grant, which, if it did not alone enable him to rise to the rank of commander-in-chief, upheld him during his well-conceived and hard-fought campaign that ended the rebellion.

Professional, even more than public, opinion forgets benefits and exaggerates shortcomings. Military men added their resentment to a just criticism by a too free press of real faults in the

military zone, and became unanimous in their opposition to it. Chief among free people in their opposition to the press were the French officers who, smarting under their fully earned defeat in 1870, endeavored to conceal the faultiness of their maneuvers under the camouflage that the newspapers exposed their plans to the enemy. The French, therefore, absolutely excluded newspaper correspondents from their armies.

The English army also objected to journalistic criticisms and to their professional hostility added class antagonism, the officers being from the aristocracy and "pressmen" from the middle and lower classes! Furthermore, the British army, as an organization, was exceedingly hostile to the "Liberal" government and determined to fight the war without interference from it.

The allied armies on the western front organized press bureaus. These not only prevented the publication of news valuable to the enemy but prevented the allied peoples from getting information, already possessed by the enemy, which would tend to reflect upon the skill of the allied commanders. These commanders insisted upon the

publication of false reports of military operations, and as the press bureaus fell into the hands of sycophantic individuals they gave great space to grandiose letters and salutations between high ranking officers that would more naturally have emanated from the half savage leaders of the middle ages than from the educated gentlemen thus led from common sense by the exercise of an arbitrary power which no authority, civil, religious or military, has ever been able to exercise with moderation.

It was largely due to this antagonism to the press that our allies were beaten nations when we came into the war.

The French people had entirely lost confidence in its government and in its army. It knew that both had lied about the offensive of General Nivelle in 1917. Public opinion was near collapse, and even revolt, when America's unexpected entry saved the situation.

The English, while not having suffered such heavy losses, because of their smaller participation in the war on land, had yet suffered frightfully. The making of munitions was delayed be-

cause their need had been concealed to protect the reputations of incompetents in office. The raising of necessary troops was postponed because a public explanation of their need meant exposing a lack of military success that would have diminished the reputations of high ranking officers which were built on the reports of military press agents. The weeding out of incompetents, a practice indispensable in the making of a victorious army, was prevented, as it was intended to be prevented, by concealing the shortcomings of officers who were to bring catastrophe later.

It was to a country where the military exercised such dictatorship that our General Staff, unaccustomed to arbitrary authority, came in 1917. The officers were taught how the allied generals made war without interference from civil governments, and even without unpleasant criticism for such errors, great or small, of mind or of heart, as they should commit. In unfamiliar surroundings and subject to foreign and aristocratic influence, they adopted a censorship which made them despots for a while, but which now leaves them practically strangers in their own land.

In the rules for censors one finds very little regarding the publication of information valuable to the enemy. That phase had been accepted as axiomatic for a long time by our civil as well as by our military population. But criticism of any kind was forbidden; all mention of shortcomings of whatever nature was prohibited; any reference to the achievements or valor of individuals, howsoever insignificant, was not permitted. In addition, it was verbally explained to the censors that nobody was to get "any advertising."

Whether this course was forced upon the American military authorities by the Washington administration to prevent a future presidential candidate from rising in the expeditionary forces, or was fathered by the high ranking officers to prevent any Grant or Sheridan from appearing, I have not learned. It is evident, however, that it succeeded in both directions. No man from the expeditionary forces is considered for the presidency; and we do not know of an officer who served overseas that demonstrated his ability to command an army without the assistance of French staff officers.

In its effect, our censorship was more severe than that of the English or the French. The French soldiers were allowed to write letters unhindered by censorship, and both the English and French soldiers returned home periodically on leaves of absence or furloughs, carrying by word of mouth what the English were forbidden to put on paper. Americans, of course, could not return home for visits, and they were no more allowed to write their opinions from leave areas than they were when in the presence of the enemy.

No sooner had the censorship rules been put into effect than they were regretted. General Pershing and his staff were strongly opposed to the War Department's method of selecting generals, and would have welcomed newspaper support to help them weed out the incompetents. They regretted it more at the end of 1917, when the little army in France was short of supplies and short of food, and when a request was refused by the War Department that newspaper correspondents be allowed to cable home about the shortage of supplies in order to stimulate production and transportation. Later in the war, partly because

of pressure coming from below, from journalists and from home, the rigidity of the censorship rules was relaxed; but to the end it remained a blanket on initiative, a snuffer on brilliancy and a camouflage for incompetents.

Censorship eventually became a disease in every belligerent country—the more virulent, the more effective. In America it merely held back supplies and kept down ability. In England, besides that, it delayed the raising of troops and maintained incompetents in high command throughout the war. In France it almost brought defeat during the Spring of 1917. Had it not been removed by Premier Clemenceau upon his ascent to power it certainly would have brought about a collapse of France in the spring of 1918, when the Germans, in an irresistible flow, were apparently approaching the city of Paris and when the falling of "Big Berthas" in the streets gave the impression that the Kaiser's guns were much closer than was the case.

Censorship was a vigorous element in the wreck of Russia; and censorship was largely responsible for the breakdown of morale in Germany. Un-

questionably it was proven by this war that the evils of an absolutely unrestricted press are not so dangerous to victory as a medieval censorship which oppresses all armies and all the peoples behind them.

In our forthcoming military legislation one of the most thoroughly considered sections should be that governing relations between press and army. We must, of course, keep from the enemy all information of a military nature. Likewise, we must put it beyond the temptation of any man to indulge the stultifying, lying suppression that characterized every army in the late war.

CHAPTER XIII

THE ONLY SOLUTION

We have finished another war in which our soldiers suffered unnecessary losses and hardships because of our failure to prepare, while the country at large has suffered almost nothing and the congressmen and the president who failed to prepare for the war have suffered not at all.

It is, therefore, difficult to establish a military policy based on the lessons of the war. Congress cannot be expected to understand the subject. Our only hope lies in the formation of a sound doctrine which will be accepted by the public and by its representatives.

This is rendered difficult by the fact that few Americans saw more than one phase of the fighting in which an American army took part. The American army, in turn, saw only a small part of the war, and the greater part of the American army was not engaged until the height of German power had passed.

Our difficulty is increased by the fact that all governments in the war have strained themselves to falsify its every phase and to mislead public opinion, supposedly in the interest of a national morale, but really in that of the heads of the government.

It is necessary, therefore, in this work to outline the course of the war as it actually took place. Space will not permit proof of the statements. They are true, however, and controversy about them can only result in establishing their accuracy.

Long before war started all the parties involved contemplated the possibility of Germany's attacking France through Belgium. Books had been published about it in all European languages. The French, English and Belgians were not surprised by a "grave breach of international law." They had held military conferences for some years in contemplation of just such an action. Besides, in similar situations, all the allies had done what Germany did.

The conduct of the allied and of the German

armies alike was based on military, not on moral, considerations.

In time of peace Frenchmen served three years in the army, Germans only two; therefore, France had half again as large a percentage of her population with the colors as did Germany. The relative strength of the French army to the German must therefore be stronger at the outset of the war than after all available reserves on both sides had been called to the colors. For this reason, and for reasons of tactical theory, the French high command planned to fight a decisive battle with Germany at the first possible moment, and therefore moved to the attack immediately after the declaration of war by the most direct line, which was across the French-German frontier.

To Germany, also, a speedy decision was imperative, as the German plan was first to overwhelm France and then to turn upon Russia. The German high command did not believe in the efficacy of frontal assault. Therefore, it opposed the French advance with troops entrenched in previously prepared positions, and turned the

French left flank by the great march through Belgium.

The number of troops employed by the Germans on the one hand, and by the French, English and Belgians on the other, were not disproportionate.

What is known to the English as the battle of Mons, and also widely known as the battle of Charleroi, was a very great battle, extending from the Alps to Belgium, in which the Germans won a great victory all along the line. After this victory the Germans sent three of the army corps from their right flank to East Prussia, and with the remainder of the army pursued the defeated allies.

On September 6th the French army, with its English assistants, faced about and in the following three days fought the battle of the Marne, which prevented the loss of the war. It was not a victory, however, that was at all decisive against the Germans, who retired to the north of the River Aisne, where they in turn repulsed all Anglo-French attacks.

The next move in the campaign on the western front was the attempt on the part of the allies to

turn the German right flank, which, being met by German reinforcements, led to the well known race to the sea.

The purpose of each army was to turn the flank of its enemy and to destroy him. In this both sides failed. Neither side intended a stabilization of the front nor was either side content with the line which actually became fixed. The allies would have wished to hold at least Lille and Antwerp, cutting the Germans from the Channel, while the German desire would have been to reach the French seacoast as far south as Abbeville.

From a tactical point of view, then, the war in the west in 1914 was a deadlock. From a strategic point of view, however, it was a great German defeat, as Germany had planned to destroy France in sixty days.

The lesson for us in this campaign is that the French army, trained but untried by war, after meeting a severe defeat, was able to retreat all along the line, in some places more than a hundred miles, face around, and win a battle upon which their national existence depended; that the Germans could maneuver an army of equal size in

accordance with the military principles of encirclement, brushing aside the untrained Belgian army like chaff, win a great battle, pursue a brave and skillful enemy into the heart of his country, then, defeated in pitched battle, retire to a strong position and check all pursuit; that England could, upon a moment's notice, ship sixty thousand men across the Channel, trained and equipped for war, munition them, supply them, and constantly reënforce them during months of hard fighting.

Compare this with the two American armies at Bull Run a half century before, where both armies of untrained men ran away from each other; with the war with Spain when our men died like flies in camps at home; with the Mexican fiasco of 1916, when for months our men could not be moved a day's march from camp or even supplied or armed in camp.

Warfare on an even greater scale was waged in the east. Although the French had not tried to fight on the defensive while waiting for Russia to mobilize, still after the early French defeats Russia made a great effort to relieve the pressure

on the western front by a hasty and half organized invasion of East Prussia. This diversion was successful in drawing three army corps from the German army just before the battle of the Marne, but was itself roughly handled.

The battle of Tannenburg, or the battles of the Mazurian Lakes, as they are popularly called, were not great battles, nor were the losses of the Russians heavy in either men or armament. There grew up in Germany, however, a need for a victory to offset the disappointment of the campaign in the west, and so the "victory" of Hindenburg was created large in fiction.

The great battle in 1914, the most nearly decisive battle of the whole war, was the battle east of Lemberg, in which the Russian army totally defeated and almost destroyed the Austrian army.

Thereafter, the Russians attempted an invasion of Germany through Silesia. This was defeated by a combination of German and Austrian armies, after which fighting on a large scale took place backward and forward across East Prussia, Poland and Galicia, the Germans generally having

the best of the Russians, and the Russians almost invariably defeating the Austrians.

It is important to appreciate that in 1914 Russia was the most powerful and chivalrous of the allies, as she not only fought her immediate opponents, but more than once lent aid to France and England by launching attacks which drew German troops from their fronts at times of great allied distress.

The lessons to Americans from this campaign, in addition to the readiness of all armies to maneuver and the ability of all their higher commanders and staffs from the outset to perform their duties, is the way Austria, having lost one great army, was quickly able to produce another from among her trained reserves. Surely, if any one of the chief contending nations—France, Germany, Russia and Austria—had not been organized on the principles of universal service, that country would have been overwhelmed in the first year of war.

When winter brought an end to the fighting it was seen that the opposing countries had been so evenly matched that neither side had been able

to win the decisive victory which had been sought by all. Germany, as the leading advocate of quick and decisive warfare, was, therefore, considered the loser in the resulting deadlock. If France and Russia had been able to stand off Germany on her own terms in a war started upon her own initiative, it was reasoned, the addition of England's army in the making would surely prove decisive in 1915. This argument proved faulty.

In 1915 England's army was not ready to function, while Russia's army had exhausted its ammunition supplies. Russia was well prepared for war in 1914 in trained men, in technical equipment, in skillful generals, and in arsenals full of ammunition, but back of the army there was not an organized civilization which in the other countries, especially Germany and France, could make up the wastage of war supplies.

In May, 1915, therefore, while the French with the support of the half-trained British formations stormed helplessly against the German line in a number of heroic and useless battles that need not be enumerated here, the Germans and Austrians concentrated against the Russian army and

broke the Russian line again and again and pursued the defeated but stubborn Russians beyond the frontier of old Russia. Nothing in military history is more glorious than the grim determination with which the old Russian army fought with empty pieces against the overwhelming storm of shot and shell poured on them by their enemies.

In that year Russian regiments contained a percentage of unarmed men who had to be clothed and supplied and exposed to enemy fire but could not be used until they had picked up rifles dropped by stricken comrades.

I remember a conversation with General Brusiloff shortly before the German attack at the Dunajec river in May, 1915. I had been visiting his front line in the Carpathians, and in particular had witnessed an attack by Russian infantry on Austrians holding the top of a low precipice. The Russians had climbed a long steep slope and had dug a shallow trench at the base of the cliff. From this shelter they emerged several times in a vain attempt to escalade the heights, being slaughtered by machine gun and rifle fire.

I mentioned this incident to General Brusiloff

and suggested that while the Austrian position was practically impregnable against infantry assault, it was particularly vulnerable to artillery attack in that it afforded no shelter from exploding shells and could not be fortified without great time and labor. The general dismissed the suggestion somewhat impatiently. Said he: "Men and munitions may be used interchangeably. I haven't any munitions. I must use men."

What a furore such a speech would arouse if made by an American general! And yet our policy is not very different. War can be waged with the loss of a few well-trained men or of many slightly trained men. Our Congress has deliberately chosen the latter method throughout our history. Three-fourths of the men killed in the Argonne and elsewhere in France were killed by Americans; only one-quarter were killed by the Germans!

In the same year (September-December, 1915) German, Austrian and Bulgarian troops, under German command, destroyed Serbia and occupied its territory. In this year, also, Italy joined the alliance and from then on conducted against Aus-

tria a secondary war, not without effect on the final outcome.

In 1916 the western front became the center of importance for the first time since the battle of the Marne. The English army, always increasing and improving, and the French army, reaching higher and higher development in its technique, were preparing for a vast combined offensive.

In order to anticipate them the Germans attacked Verdun in great force in February while the plans for the Franco-British offensive were still incomplete.

If the campaign of 1914 on the western front was substantially a campaign between the German and French armies, the battle of Verdun was fought entirely by Germans and Frenchmen. No allied troops appeared on either side. The two trained armies of the two military nations engaged in the greatest battle of history and ended in deadlock when the Franco-British attack on the Somme forced the discontinuance of the German assaults at Verdun.

It must be noted by all, in spite of any national

pride, that only when attacking the French have the Germans been stopped.

They broke the Russian line in the spring of 1915 (May-September), and the Serbian line that fall (September-December). A handful of German divisions cut the Italian defenses like a thunderbolt in the autumn of 1917, and the Germans smashed through the British army in the spring of 1917. American troops have resisted their onset, but under command of skilled and experienced French generals.

The year 1916, which saw Roumania overrun, also saw a revival of the Russian army, due to the arrival of the French and English-made artillery and ammunition and a brilliant Russian offensive under Brusiloff which until 1918 was considered the best coördinated attack effected by allied troops.

It was fear of this Russian revival, as well as of the increasing British army and the development of French tactics and materiel which determined Germany to enter upon the unrestricted submarine campaign which brought about her defeat.

The Russian army, often victorious, more often defeated, never lost its power of resistance nor its promise of further aggression. It was at home that Russia collapsed. The Russian people, suffering from the horrors of the war, broke into rebellion, which rapidly descended into anarchy, and took Russia out of the war and of civilization.

The course of America's timely intervention and the war in the main theater have been recounted elsewhere. Our help was the main factor in the decision, but other important incidents must not be ignored.

In June of 1918 the Austrians, this time without the aid of German troops, attacked the Italian, French and English forces along the Piave. The Italians had been much strengthened in munitions and equipment by their allies, their morale had been built up and French officers had tactfully imparted a considerable amount of military knowledge.

The Austrian attack after some local successes broke down. The morale of the Austrian people had suffered severely during the winter and infected the army, which in October broke into a

wild and disastrous rout, taking Austria out of the war.

In September the line of the Central Powers in Macedonia was broken. Adopting the tactics successfully employed by the Germans on the Piave the year before, the French commander-in-chief concentrated French troops and French artillery and with them broke a hole through the Bulgarian line. The Serbian army, which was not sufficiently trained to effect this complicated maneuver, was especially well qualified for the arduous pursuit, being familiar with the country, hardy, and used to meager fare.

The Austro-German-Bulgarian-Turkish army was never rallied.

Bulgaria sued for peace on September 26th and Turkey followed on October 28th.

The question has been raised as to the realness of this battle. It has been suggested that Bulgaria asked for an excuse to quit. Time will bring out full information on that point. It need only be observed here that the morale of a country at war is as much a part of its fighting efficiency as is its artillery.

Staggered by the defection of her allies and the defeat of her armies, Germany's morale collapsed and she in turn fell into anarchy. The sailors of the fleet refused to put to sea on October 21st. Their revolt rapidly spread. The revolution might have been checked if troops had been sent from the front for this purpose, but no troops could be spared from before the unceasing attacks of the American army.

The revolution succeeded, and in consequence the army at the front no longer could be supplied and was compelled to accept any terms which the allies saw fit to offer.

From this we must draw an additional lesson: that a popular government at home is necessary to support the bravest army at the front.

France suffered more than Germany; France suffered more than Russia.

From September, 1914, until August, 1918, the life of the French republic hung by a thread. There were murmurings; there were plots; but never did the nation fail to support its marvelous military machine.

In this war there were but two armies of the

first class, the French and the German. The Russian, American, English, Italian and other armies trailed along after them; in which particular order does not matter. The French and the Germans were about an equal match in the field. It was the superiority of the French at home, the result of popular institutions, that achieved the victory.

Equal at the front and stronger at the rear, France offers the complete model for national defense.

German writers have dwelt at great length upon the aid they were forced to render the Austrians, aid both in troops and generalship. Sufficient stress has not been given to the aid lent by France to her allies.

During 1914 French generals practically commanded the British army. In the years following the British withdrew from beneath French control and suffered heavily for their national egotism. They accomplished no military successes and, on the contrary, had to be rescued several times by the French from predicaments into which their inexperienced officers had led them.

It was French generalship, in addition to French and English materiel help, which reorganized the Italian army along the Piave after its defeat at Caporetto, and French staff officers as well as French artillerymen organized the Italian army for the campaign of 1918.

Our own army, of course, was formed on the French model and briefly trained in the French school. Its most brilliant successes were achieved under French generals and its most bitter failures came when French advice was disregarded.

This fact must be accepted before a proper military policy can be found. It is a dose which will not be swallowed without effort. We admit readily that the greatest schools of architecture, of art, of acting, and of music are in Europe. Before the war no doctor denied that a medical education was incomplete without a course in Berlin or Vienna. We approached Europe more closely in all these arts than we did in the art of war, and yet we find individual and national difficulty in admitting our obvious military shortcomings.

Why is it?

It is because fighting is the primeval purpose

of the male. In modern times, when fighting becomes necessary only once in a lifetime instead of every day, the urgency is no less great. The fact that it is the male mission is as true as in the stone age.

Women have entered all forms of industry, of all the arts and the sciences. They play an increasing part in government, so long a masculine monopoly. From war only do they shrink. Here men stand alone, the preservers, the admired of women. Here they glory in their masculinity and resent any suggestion that the males of another race can excel them even in technique.

Of this our lawmakers are ever conscious. They may not think that every man is a soldier but they know that every man is a voter. Hence the blatant oratory, the misleading question: "How do you account for the fact that our boys after three months are better soldiers than the veterans of Germany?"

The fact is they were not. "Our boys" did not fight in this war. Regiments of soldiers of a year or more training fought. Their efficiency varied in direct ratio to the length of their training, ex-

cept as modified by exceptionally capable or notoriously inefficient commanders. "Our boys" never fought well in any war. The civilian cannot endure the battle. A complete metamorphosis must take place to turn the civilian into the soldier. Many times must a man overcome the fear of death in his imagination before he can rise triumphant over it on the battlefield.

It was "our boys" who broke on both sides at Bull Run. It was "soldiers" that would not give way on either side in the Wilderness.

The Great Division lost twenty-one prisoners in a little trench raid in October of 1917 while still untrained and but eleven more during all the great battles that followed.

The steeled soul is not all in war. The efficient private is a skilled workman, and each step upward in a military hierarchy demands an increase of knowledge in geometric progression.

Just as misleading as to say that our boys are born soldiers is it to suggest that our officers are born commanders. Practice is as necessary as study to develop their abilities and to permit selection for important posts. This our old army

did not permit, and in consequence our soldiers were not led with the same skill as those of the French and the Germans. Indeed, the advantage which the American regular officer held over the National Guard officer in opportunity to become proficient in the art of war was less than the advantage the French officer held over him. We suffered as a consequence.

It is putting the case conservatively to state that throughout the army the French of any grade were the peers in military skill of the Americans of the next higher grade. The French private knew as much as the American noncom; the French noncom as the American company officer; the French company officer as the American field officer, and the French field officer as the American general.

So excellent was French discipline that civilians and thick-headed professional soldiers did not recognize it. French troops on the march looked like a mob as compared to Americans or English. They were merely traveling in the easiest way and could be formed in seconds. But American or English raw troops allowed such latitude would

have become a mob. So in battle. French soldiers would be found wandering all over, but they were on substantial purpose bent and returned to their commands. Well trained troops can do things and be given liberties impossible to new formations.

The French had no officer caste dispute. All their officers were chosen from among the whole people by examination, many of them from the ranks; they were then given a complete education in the duties of company officers.

There was no room for doubt as to who was the better man, officer or private. The private readily rendered obedience; the officer had no need to protect his authority by aloofness.

But the greatest superiority of all was the superiority of the French civil government over the American civil government. In none of the crises of the war did the French civil government fail; not when Von Kluck approached Paris in 1914 nor when the French army was bleeding to death on the walls of Verdun, or when Nivelle's offensive failed, or when the German wave almost submerged the allies' defense in the Spring and

Summer of 1918. The French civil administration understood war and the French people understood war.

We scattered our energies into a myriad of civilian pursuits—construction of unnecessary training camps, tremendous building of docks and warehouses. We had the surplus energy to spare and we had a minor part to play. France had neither, but she knew self defense as a nation and threw her full strength upon the enemy.

It is a sophistry of ours to say that "man for man, ship for ship, our navy is the equal of any in the world," as though a man or a ship means anything in a naval battle. We also salve indecision with the statement that "our regular army for its size is as good as any army in the world." That is not true. Our small army was never trained as an army. Our generals were never exercised in the command of the full number of our troops. No effort had ever been made to clean out the incompetents among the generals as Joffre cleaned out the incompetent generals two years before the outbreak of war.

There is only one way to have a good army and that is to have every man a soldier.

Then each one will be exalted in the sense of his manhood.

Each father will understand the demands upon his son; each manufacturer will know for what he is building; each congressman will understand about what he is legislating. The military man will be judged by a comprehending public and there will be no room for him to seek advancement by playing upon the misapprehensions of a civil constituency.